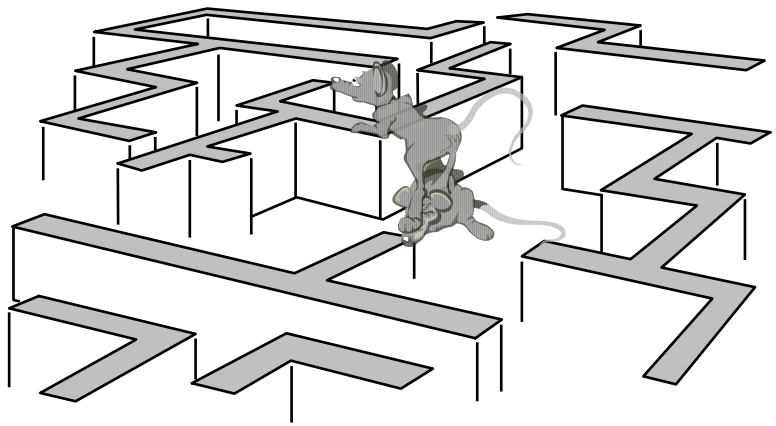
Ingest

July 2007
Interim Update – LaRC 7.20

Raytheon

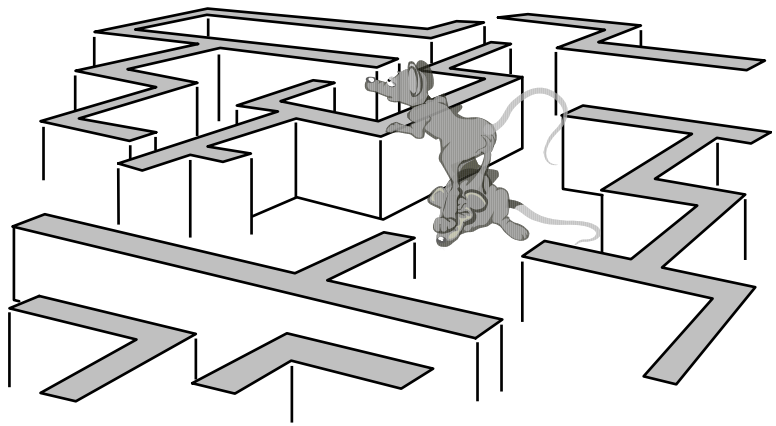
Overview of Lesson

- Introduction
- Ingest Topics
  - Ingest Concept
    - System Context
    - DPL Ingest Subsystem
  - Ingest Activities
  - Ingest Categories
  - Ingest Scenarios
  - Logging in to System Hosts
  - Launching the Data Pool Ingest GUIs
  - Monitoring Data Pool Ingest



Overview of Lesson (Cont.)

- **Ingest Topics (Cont.)**
  - **Monitoring Data Pool Ingest Status**
  - **Interventions & Alerts**
  - **Modifying DPL Ingest Configuration Parameters**



Objectives

- **OVERALL:**
  - **Develop proficiency in the procedures that apply to ingest operations**
- **SPECIFIC:**
  - **Describe the ingest function, including a general statement of the ingest responsibility in the system and an overview of the ingest process**
  - **Perform the steps involved in**
    - **logging in to system hosts**
    - **launching the ECS DPL Ingest GUI**
    - **monitoring and controlling ingest requests**
    - **viewing the Ingest History Log**
    - **verifying the archiving of ingested data**

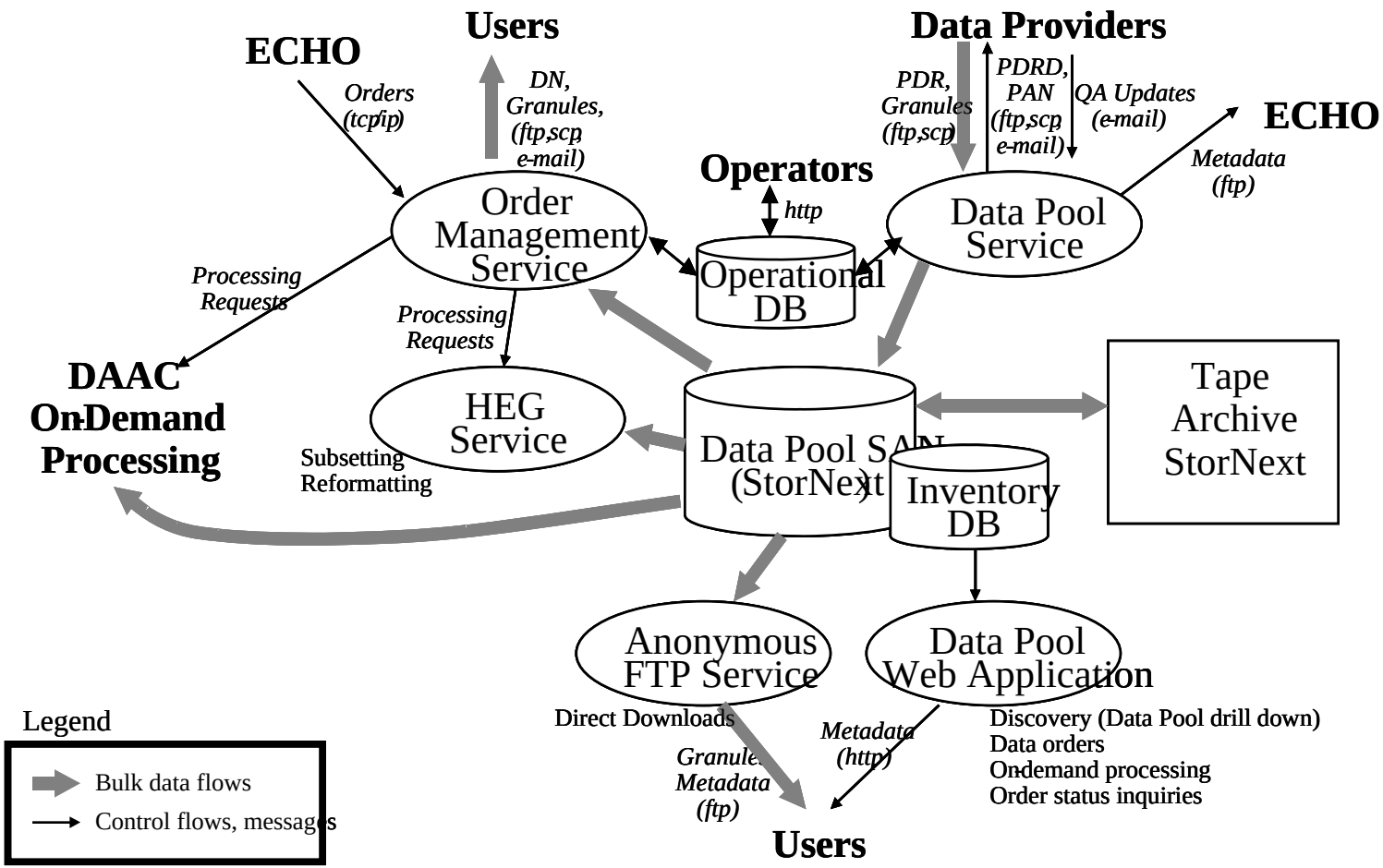
Objectives (Cont.)

- **SPECIFIC (Cont.):**
  - **Perform the steps involved in**
    - **modifying external data provider information**
    - **modifying Ingest Subsystem parameters using the Data Pool Ingest GUI Operator Tools**

Objectives (Cont.)

- **STANDARDS:**
  - **Lesson content (procedures in the lesson)**
  - **Mission Operation Procedures for the EMD Project (611-EMD-100)**

Ingest Context Diagram



Ingest Context (Cont.)

- **Context (Cont.)**
  - **Data Pool Ingest Subsystem is point of entry to the system for data from external data providers**
  - **The Order Management Service (OMS):**
    - **Manages all distribution services**
    - **Accepts distribution requests from external interfaces (e.g., ECHO)**
    - **Implements distribution and staging policies as configured by the DAAC**
  - **Data Pool (DPL) Service:**
    - **Point of entry to the system for data from external data providers**
    - **Requests staging operations for data not found in the SAN**
    - **Interfaces with on-demand processing services, such as HEG (internal) and HEW (external)**
    - **Provides a web-based order status interface for users, as well as a web-based operator interface to manage distribution**
    - **Manages all ingest, staging and archiving services**
    - **Polls for, and processes ingest requests in accordance with ECS Interface Control Documents (ICDs)**

Ingest Context (Cont.)

- **Context (Cont.)**
  - **DPL Ingest Service: (Cont.)**
    - **Implements ingest, archiving and staging policies as configured by the DAAC**
    - **Dispatches pre-processing services to perform metadata extraction and format conversions and dispatches subscription services following ingest**
    - **Accepts and applies Quality Assurance (QA) updates**
    - **Maintains and exports collection and granule metadata**
    - **Supports discovery, drill down searches, and direct data downloads via the Data Pool Web Application and Anonymous FTP Service**
    - **Provides a web-based operator interface to manage ingest, archiving, staging and metadata**

Ingest Context (Cont.)

- **Context (Cont.)**
  - **The HEG service:**
    - **Accepts requests for subsetting, reformatting, and re-projection via the HEG Tool**
    - **Dispatches HEG processes across platforms while performing load balancing and resource management**
    - **Used by the Data Pool Service to perform routine pre-processing (e.g., format conversion) during ingest**
    - **Used by the Order Management Service to perform on-demand processing during distribution**

Ingest Context (Cont.)

- **Context (Cont.)**
  - **Data Pool Storage:**
    - **consists of a Storage Area Network (SAN) that is accessible to all internal platforms for processing and distribution**
    - **Provides a large disk cache for recent inserts and on-going operations enabling up to several months worth of data to be buffered**
    - **Implements data retention and migration policies as configured by the DAAC**
  - **Tape Archive:**
    - **Provides tape storage for all archived data**
    - **Accessed only by the DPL Ingest Service during archiving or staging**

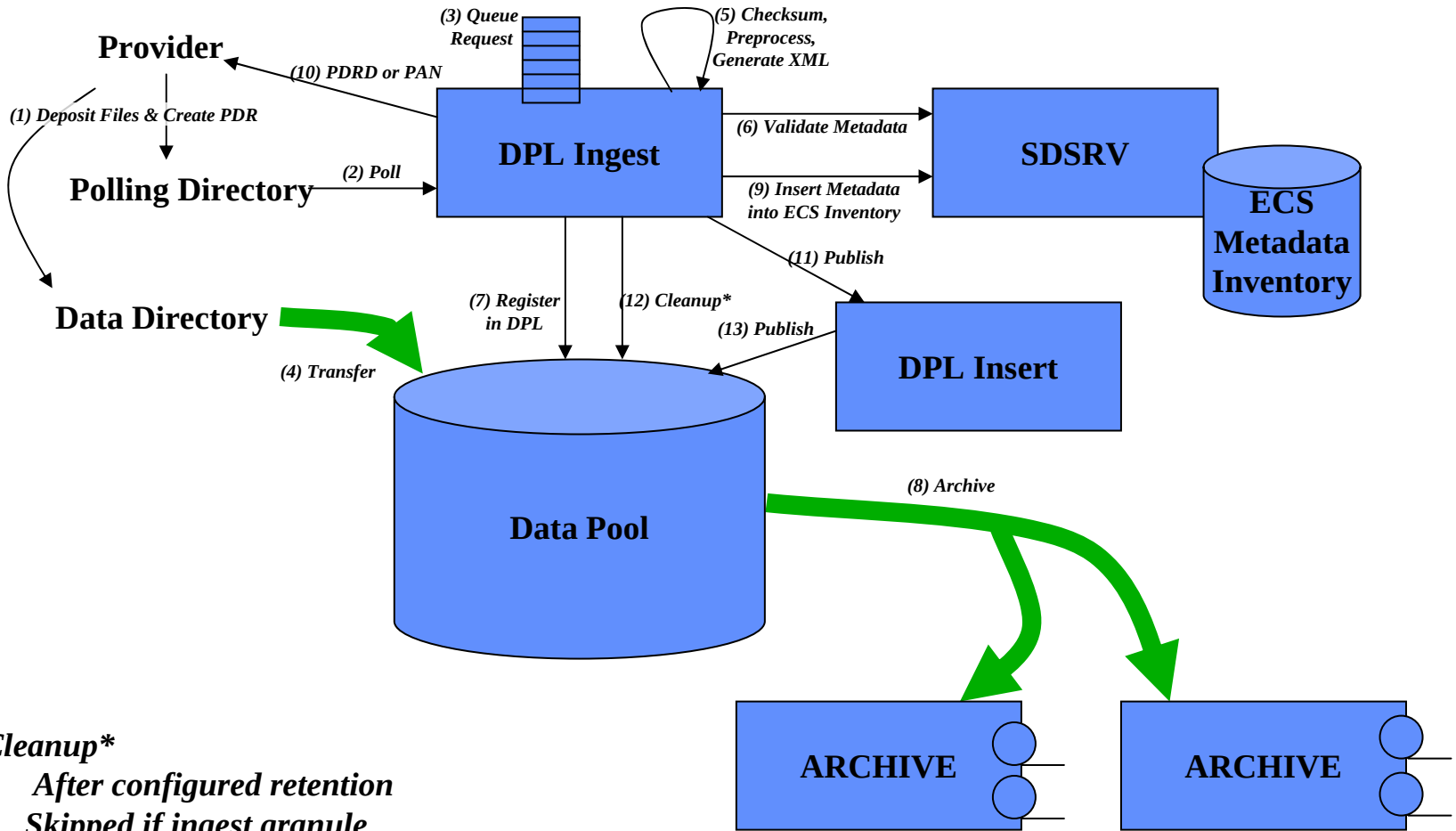
Ingest Context (Cont.)

- **Context (Cont.)**
  - **Inventory Database:**
    - **Tracks all archived granules**
    - **Accessible to all platforms**
    - **Contains a reduced set of metadata (metadata needed only to support Data Pool web) searches and ingest processing**
    - **Complete metadata for each granule is stored in metadata files in XML and ODL format**
    - **All metadata files are kept on disk, i.e., they are not archive**

Ingest Context (Cont.)

- **Context (Cont.)**
  - **The Operations Database:**
    - **Accessed by the Order Management Service, Data Pool Service and operator interfaces**
    - **Holds operational data including the state of active requests**
    - **Holds historical information about completed requests**

DPL Ingest Subsystem



Cleanup*

- ***After configured retention***
- ***Skipped if ingest granule is published***

DPL Ingest Subsystem (Cont.)

- **The DPL Ingest Subsystem:**
  - **The component that the Ingest Technician uses when getting data from external data providers into the system**
  - **The Ingest Technician has access to Data Pool Ingest through the DPL Ingest GUI**
  - **Used for SIPS, S4P,Aster,Secure Copy and cross-DAAC ingest**
  - **Supports the ingest protocol known as 'Polling with Delivery Record'**
  - **Inserts the ingested data into the archive and the Data Pool SAN**

DPL Ingest Subsystem (Cont.)

- **DPL Ingest Subsystem (Cont.)**
  - **SIPS providers place their data and Product Delivery Record (PDR) files into a polling directory**
    - **The directory can be local, e.g., accessible via a mount point; or remote, i.e., accessible via FTP or Secure Copy (SCP)**
  - **The DPL Ingest Service**
    - **Polls these directories as configured by the DAAC and retrieves all new PDR files in those directories**
    - **Queues ingest requests for all PDRs that it finds**
    - **Checks available resources and DAAC configured priorities**
    - **Granule files are copied into the Data Pool SAN, using hidden directories for that purpose unless the DAAC requested that the data be published on insert**
    - **Preprocessing events include checksum verification, translation of .met file to XML**

DPL Ingest Subsystem (Cont.)

- Minimal granule metadata is inserted into the Data Pool database
- The granules are then copied over to the ECS archive
  - This may involve a copy to both a primary and backup archive depending on how the ESDT is configured for archiving
- The granule metadata is inserted into the ECS inventory in the SDSRV database
- The provider is notified of the outcome, which could be immediately via Product Deliver Discrepancy Report (PDRD) if Product Delivery Record (PDR) validation failed, or later via a short or long Product Acceptance Notification (PAN)
- If the ESDT is configured for public Data Pool insert, additional granule metadata is populated in the Data Pool database warehouse tables

DPL Ingest GUI

- **DPL Ingest GUI**
  - **Provides capabilities:**
    - **Monitor ingest requests and errors**
    - **Respond to ingest requests for operator intervention and alerts**
    - **Enter configuration information related to providers, polling locations, and the handling of data collections**

Logging in to System Hosts

- **Logging in to system hosts is accomplished from a UNIX command line prompt**
  - **It is an initial set of steps that is performed when accomplishing many other Ingest tasks**
- **Procedure**
  - **Access the command shell**
  - **Set the DISPLAY environmental variable**
  - **Log in to the specified host using secure shell and the specified user ID**

Launching ECS Data Pool Ingest

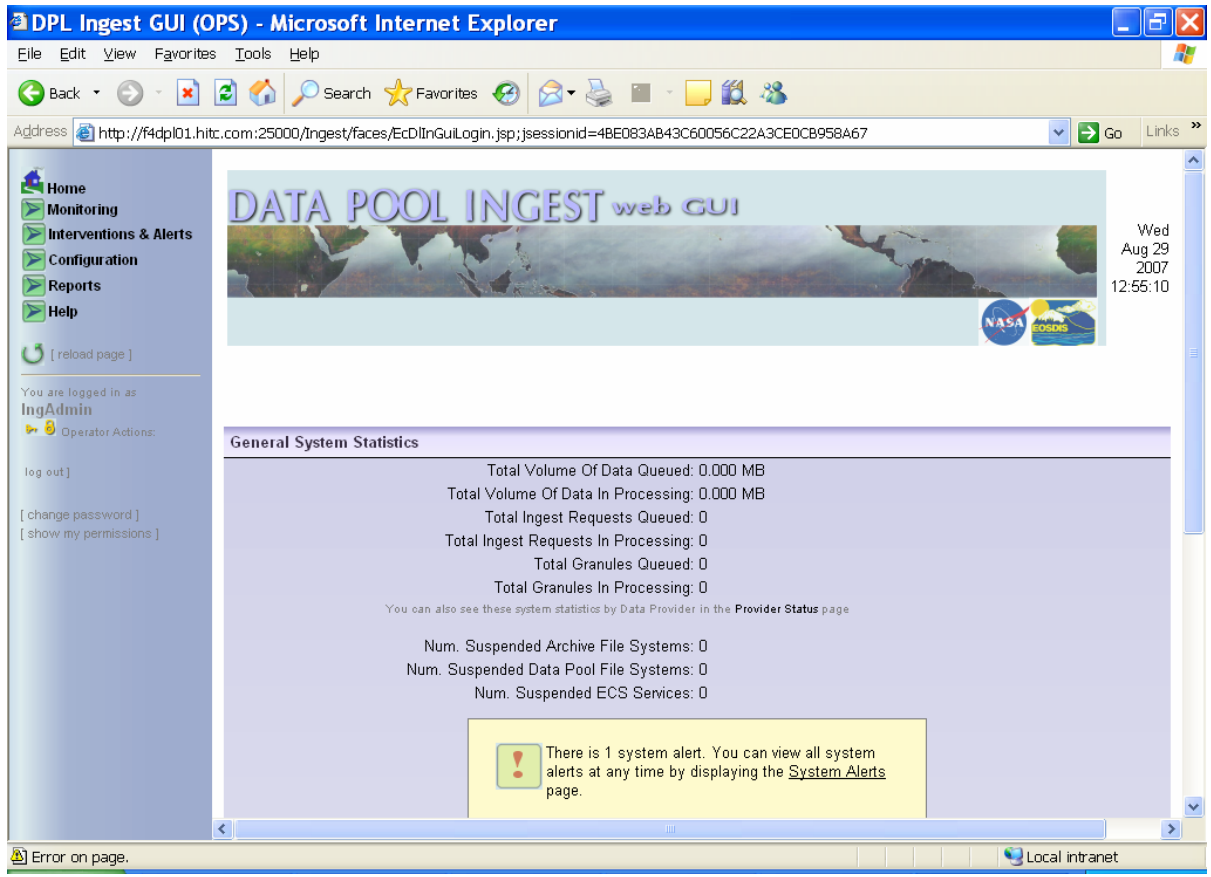
- **Software applications associated with Data Pool Ingest:**
  - **EcDlInProcessingService**
  - **EcDlInPollingService**
  - **EcDlInNotificationService**
- **Normally multiple instances of some Ingest servers**
- **Ingest depends on other servers (Science Data Server and Data Pool Maintenance GUI**

Launching Data Pool Ingest (Cont.)

- **Procedure (Launching the Data Pool Ingest GUI)**
  - **Launch Mozilla Firefox 2.0**
  - **Type the URL or (retrieve by bookmark) the Data Pool Ingest GUI**

ECS Data Pool Ingest GUI Home Page

- The Navigation panel is located in the left pane and contains menus that allow the operator monitor/control requests
- The General System Statistics section provides general information about current requests and granules in the system, as well as the various services and file systems used in processing



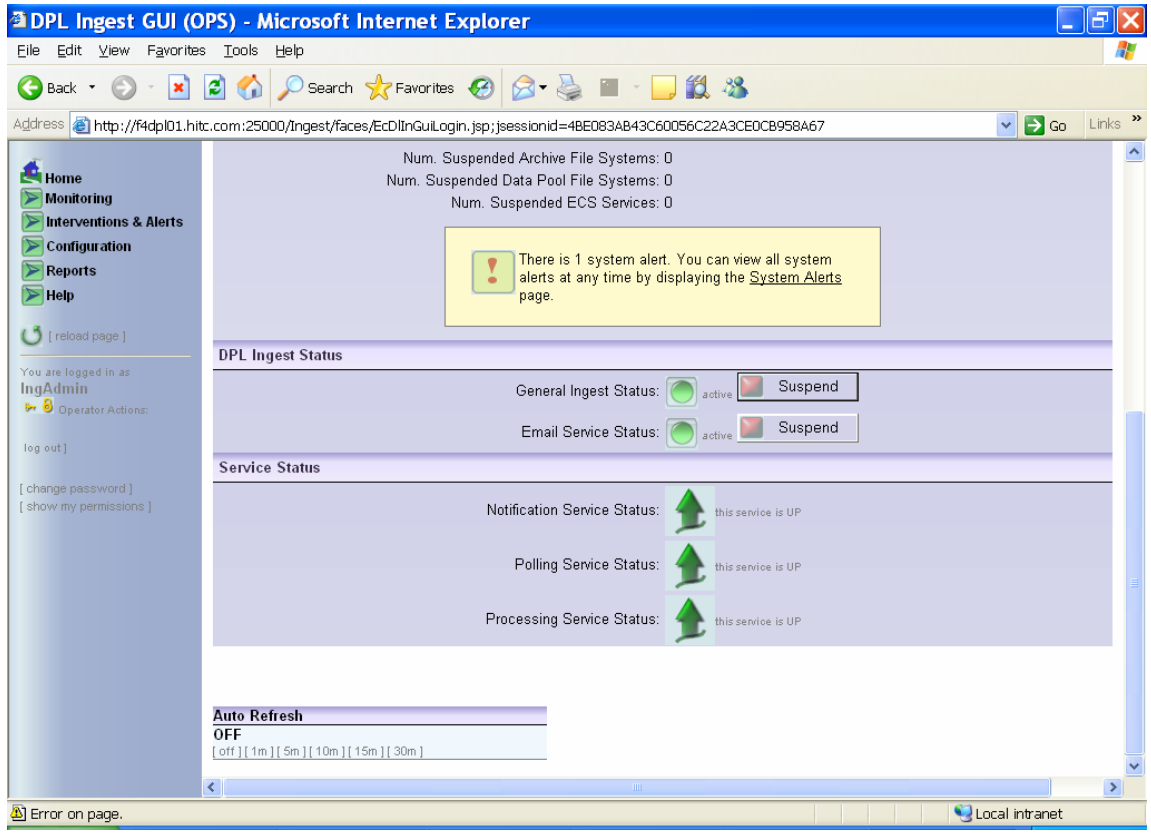
ECS Data Pool Ingest GUI – Home (Cont.)

- **The General System Statistics section provides general information about current requests and granules in the system, as well as the various services and file systems used in processing**

Field Name	Description
Total Volume of Date Queued	Sum of the size of all files of all granules that have not yet been activated
Total Volume of Data In-Processing	Sum of the size of all files of all granules that are currently active, and not suspended or in a terminal state
Total Ingest Requests Queued	Total number of requests that have not yet been activated
Total Ingest Requests In-Processing	Total number of requests that are currently active, and not suspended or in a terminal state
Total Granules Queued	Sum of all granules in active or queued requests that have not yet been activated
Total Granules In-Processing	Sum of all granules in active or queued requests that are currently active, and not suspended or in a terminal state
Num Suspended Archive File Systems	Total archive file systems that have been suspended, either automatically by the server or manually by operator
Num Suspended Data Pool File Systems	Total data pool file systems that have been suspended, either automatically by the server or manually by operator
Num Suspended ECS Services	Total ECS service hosts that have been suspended, either automatically by the server or manually by operator

ECS Data Pool Ingest GUI Home Page

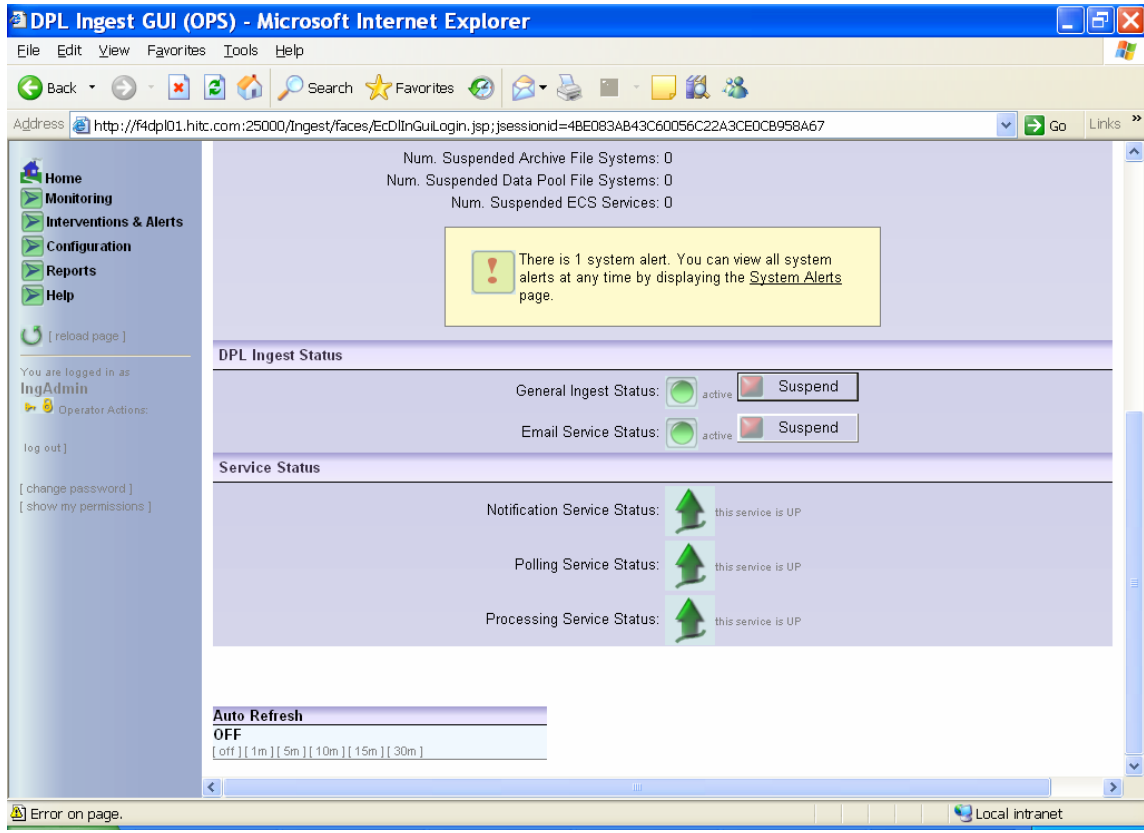
- The **DPL Ingest Status** section consists of two buttons that enable the user to halt various actions throughout the data pool ingest system
  - **General Ingest Status** button stops polling from all polling locations and prevents any new granules from being activated
  - **Email Service Status** stops any further email notifications



ECS Data Pool Ingest GUI Home Page

– The **Service Status** section provides the status of the three primary services that make up the Data Pool Ingest system

- **Notification Service Status** - If suspended, no notifications will be sent
- **Polling Service Status** If suspended, PDRs will not arrive from any configured polling location
- **Processing Service Status** - If suspended, no actions on any requests or granules will start



Monitoring Data Pool Ingest

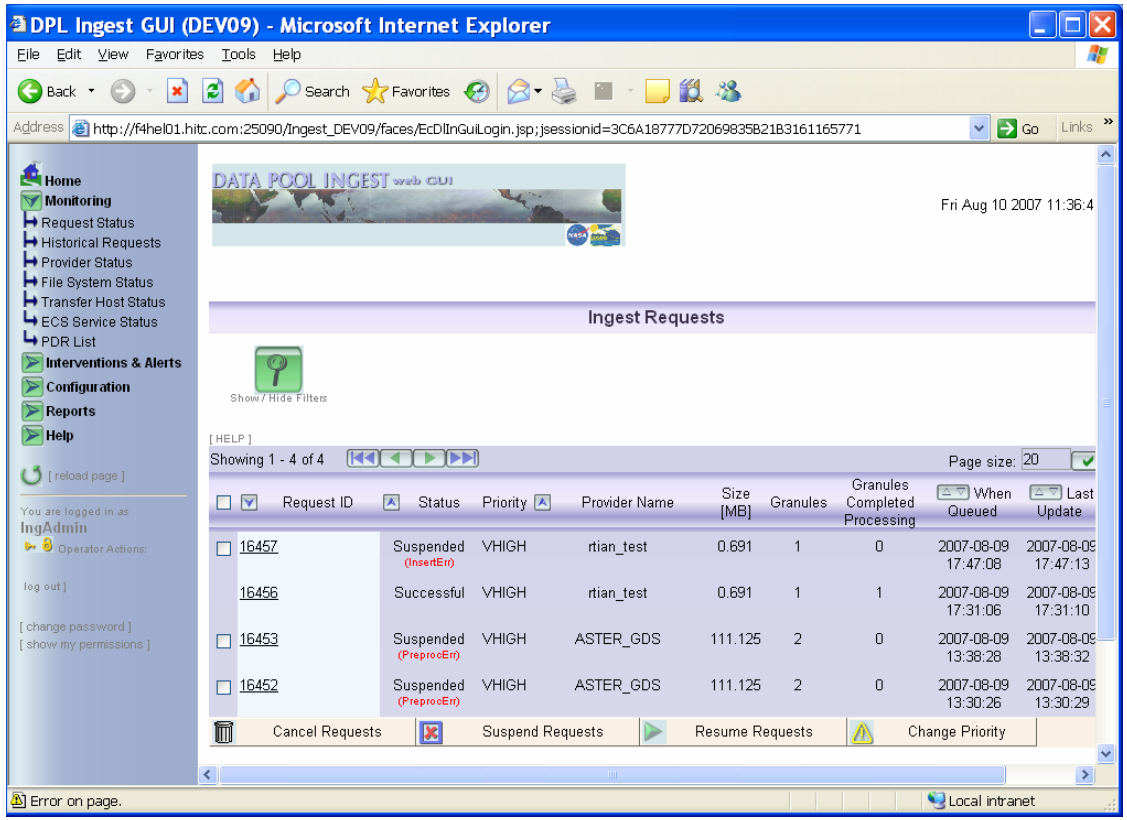
- **The following Data Pool Ingest Statuses can be monitored:**
  - **Requests Status**
  - **Historical Requests**
  - **Provider Status**
  - **File System Status**
  - **Transfer Host Status**
  - **ECS Service Status**
  - **PDR List**

Monitoring - Ingest Request Status

- The Ingest Request status screen is used to check the status of current active ingest requests. The operator may select any eligible request and perform one of several actions:
  - Cancel Requests – This is an irreversible action, there is no way to 'un-cancel' a request
  - Suspend Requests – Performed only if the selected requests are not already suspended or cancelled
    - Used to stop new granules from being activated
  - Resume Requests – This action may be performed only if the selected requests are suspended
  - Change Priority of the request(s) –
    - Requests in terminal states cannot have their priority changed
    - A default priority will be assigned to requests based upon the configuration of the request's provider

Monitoring - Ingest Requests

- **Procedure**
  - **Select the DPL Ingest GUI Monitoring link**
  - **Select the Requests Status link**
  - **Click on one of the Request ID's**
    - **Displays detailed information about the request**



Monitoring - Ingest Request Status Page Field Descriptions

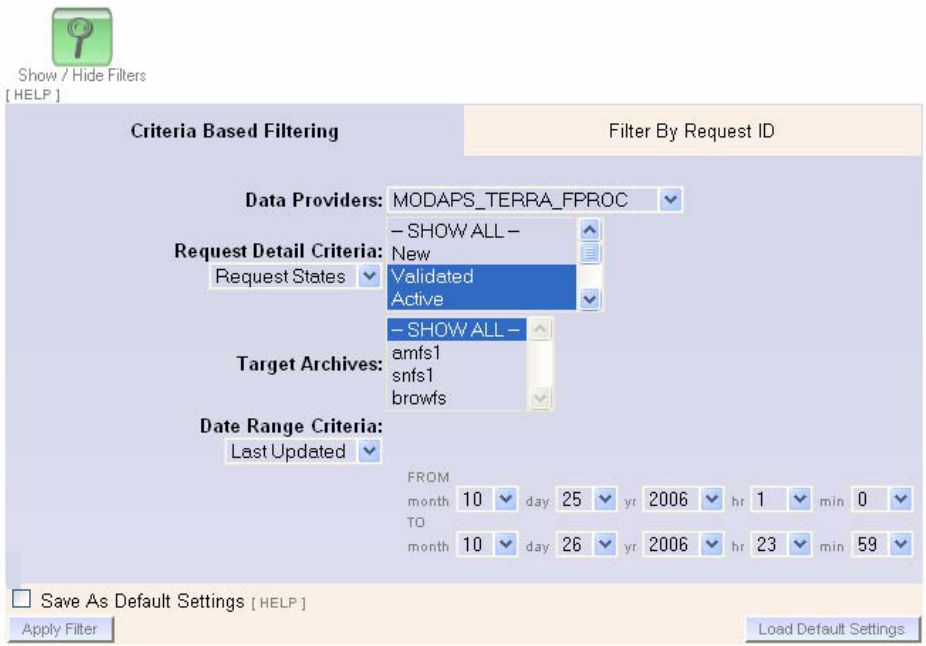
Field Name	Description
Request ID	Unique ID for an ingest request
Status	Status of the request (see Table 3 for list of possible statuses)
Priority	The precedence which a request will have for activation and various processing actions.
Provider Name	Name of the provider from which the request was obtained
Size [MB]	Sum of the size of all granules in the request
Granules	Total granules included in the request
Granules Completed Processing	Total granules that have reached a successful state
When Queued	Time the request was encountered by the polling service
Last Update	Time of the last change made by the ingest services to the status of the request or its granules

Monitoring - Ingest Request Status Page Field Descriptions

Request Status	Request Actions			
	Suspend	Cancel / Change Priority	Resume	No Actions Allowed
New		X		
Validated		X		
Active	X	X		
Partially_Suspended		X		
Suspending / Suspended		X	X	
Resuming	X			
Failed				X
Partial_Failure				X
Canceling				X
Partially_Cancelled				X
Successful				X

Monitoring - Changing Request Status Filters

- **Procedure**
  - **Select the DPL Ingest GUI Monitoring link**
  - **Select the Requests Status link**
  - **Select the Show/Hide Filters button**

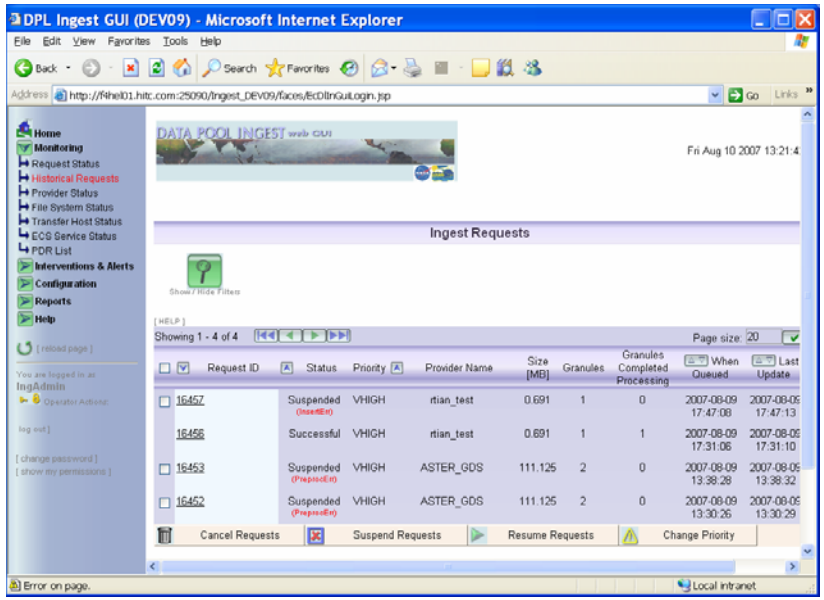


Monitoring - Changing Request Status Filters (Cont.)

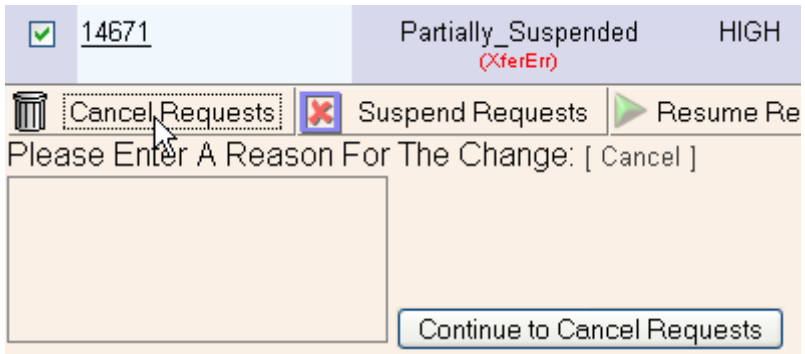
- **Criteria Based Filtering**
  - **Allows filtering the attributes of various requests**
  - **If you want to filter a single granule ID select Filter By Request ID**
- **Filter by Data Provider**
- **Filter by Request State criteria**
  - **Selection of this state forces the filter for the Request Detail Criteria to be requests states**
- **Error Type**
  - **Selection of this state forces the filter for the Request Detail Criteria to be error types**
- **Filter by Request Detail Criteria**
- **Filter by Target Archives Criteria**
- **Filter by Date Range Criteria**

Monitoring – Resume, Suspend, Change Priority Of Ingest Requests

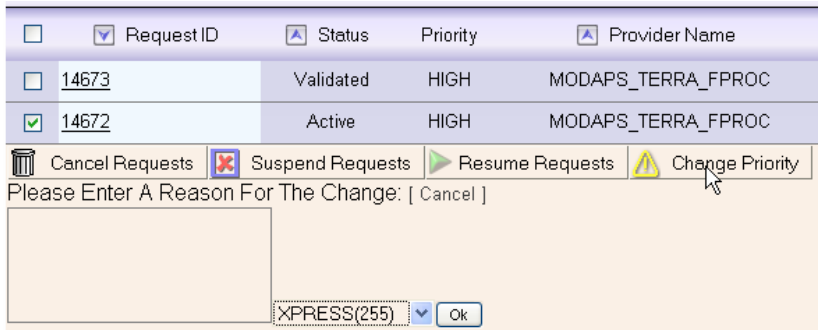
- **Procedure**
  - **Click on the box corresponding to the request to be resumed**
  - **Click on the Resume, Suspend or Change Priority button**
  - **Enter the Reason for the change**
  - **Click on the OK button**



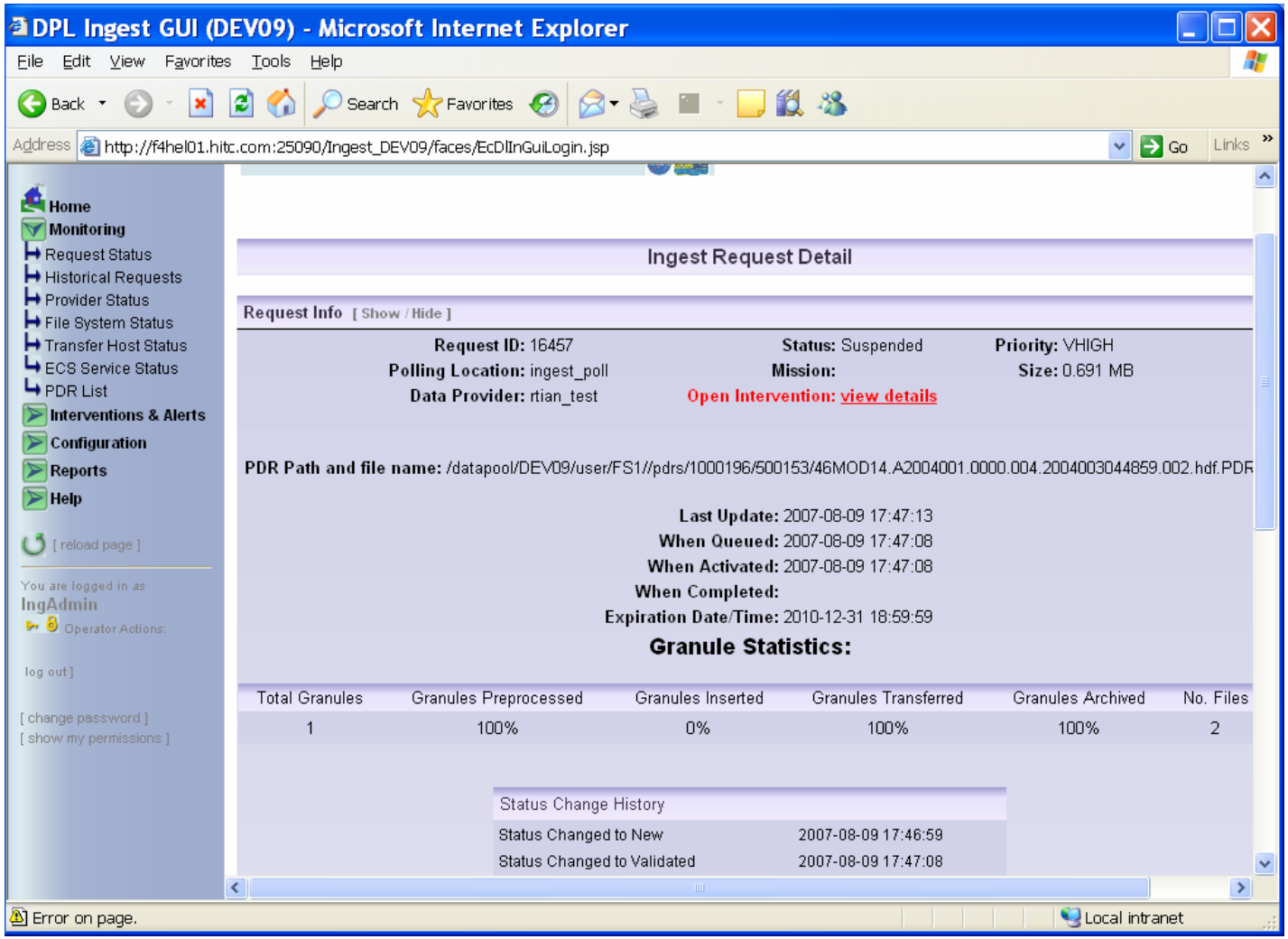
Cancel/Resume



Change Priority



Monitoring - Ingest Request Detailed Status



Monitoring - Ingest Request Detailed Status (Cont.)

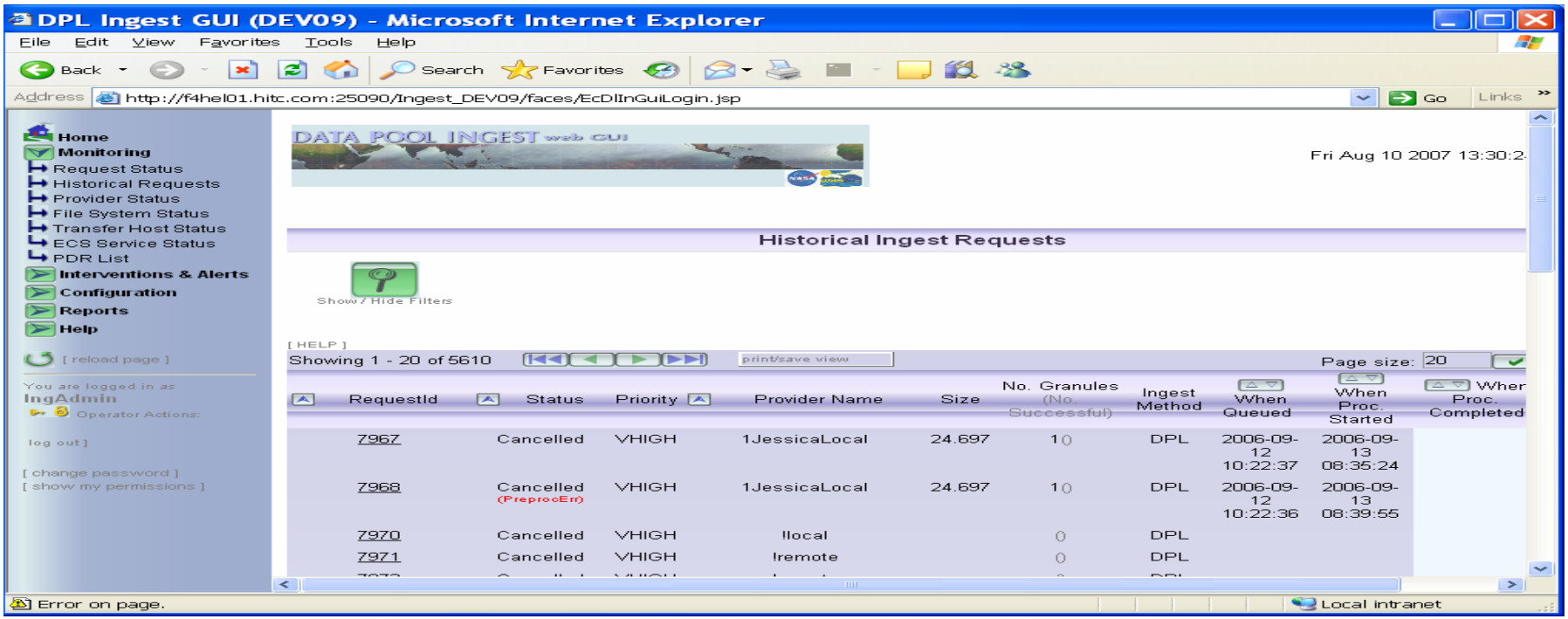
- **Any granule(s) encountering problems during any point in their processing are initially flagged as "suspended"**
- **The following actions may be performed on granules that have been initially suspended:**
  - **Retry Selected Granules: This applies only to granules that are currently suspended**
  - **Retry Selected Granules From Start: This applies only to granules that are currently suspended and retries them from the beginning**
  - **Fail Selected Granules: This applies only to granules that are currently suspended and transitions the granule into the failed state**
  - **Cancel Selected Granules: This applies to granules that are in the New state, Active state, or Suspended state and can be cancelled by selecting this icon**
    - **If the state is Successful, Failed or any Terminal state, the granule may not be cancelled**
    - **This action manually fails the granules, marking them 'canceled'**

Monitoring - Historical Requests

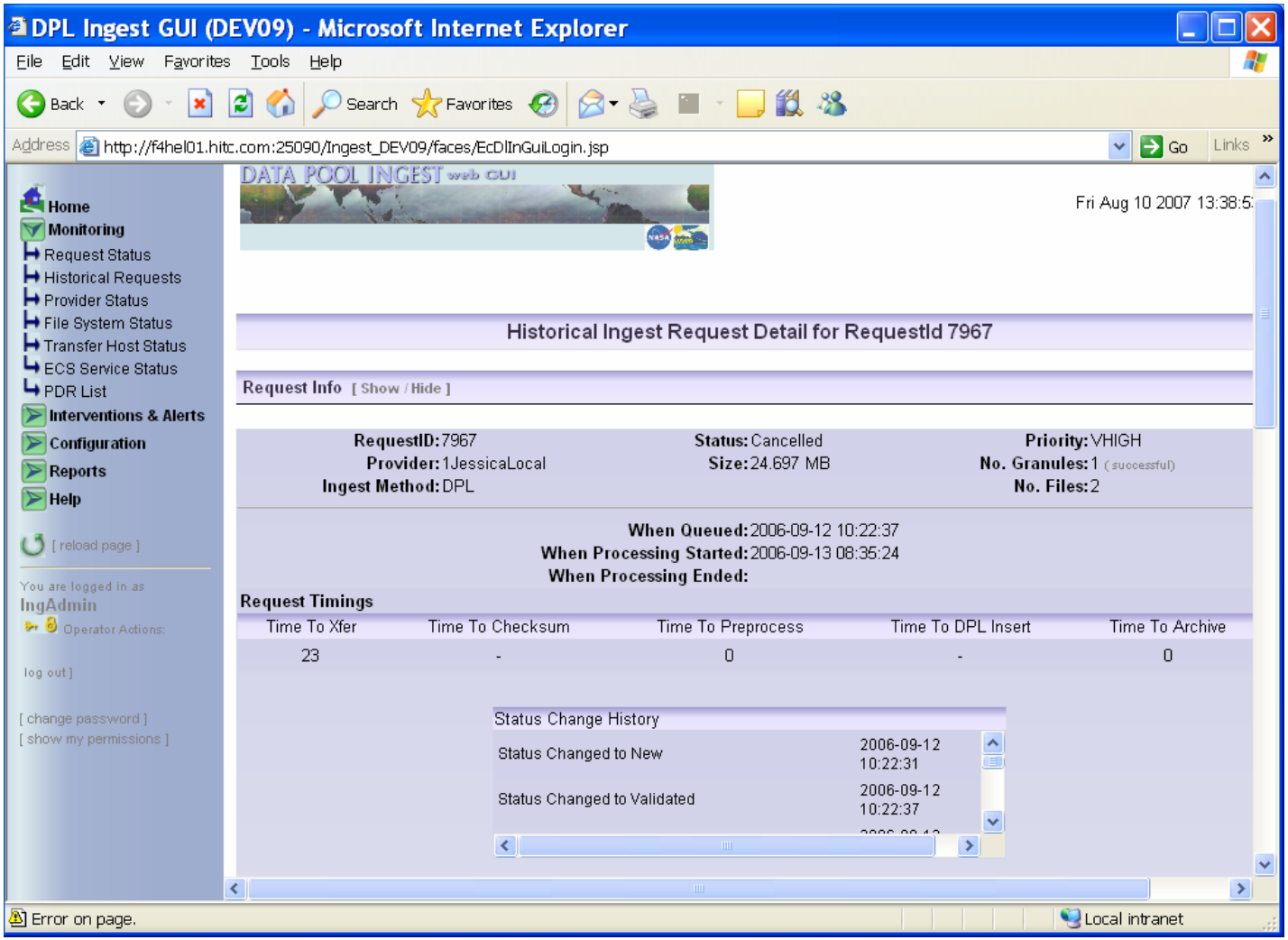
- **The DPL Ingest Historical Requests provides the following information:**
  - **A summary of ingest requests that have been processed**
  - **Detailed granule information about each completed ingest request**
  - **Ingest request processing statistics to include time required to perform Transfer, Checksum, Preprocess, DPL Insert and Archive.**
  - **Detailed information about each granule.**
- **Since the Historical Requests are completed requests, no action can be processed form these pages**

Monitoring - Historical Requests (Cont.)

- **Procedure**
  - **Select the DPL Ingest GUI Monitoring link**
  - **Select the Historical Requests link**
  - **Select the Show/Hide Filters button**



Monitoring - Historical Requests Details

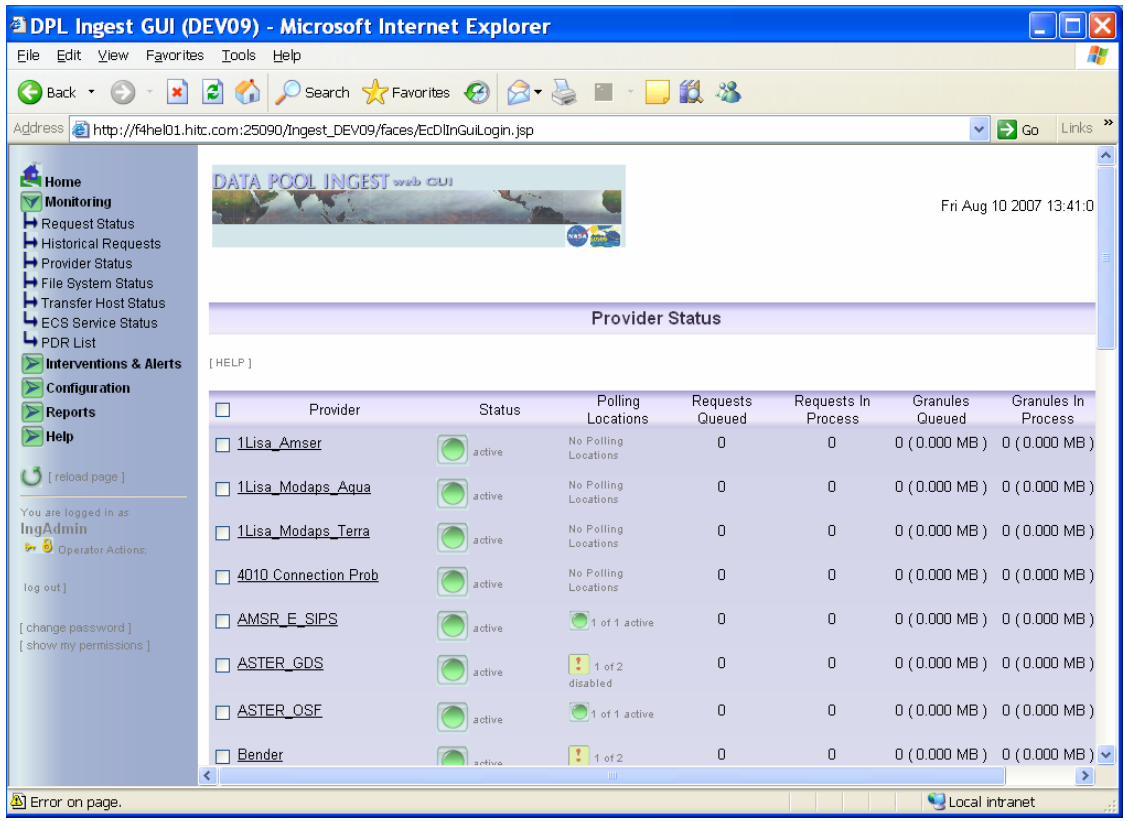


Monitoring – Provider Status

- **The Provider Status link provides access to the status and information about each configured data provider in the ingest system**
  - **A List of all configured providers along with general statistics for each provider**
  - **Provides the status of the provider (i.e. Active, Suspended by Server, or Suspended by Operator)**
    - **This is the only changeable field on this page. From this page a provider can be Resumed or Suspended**
  - **Provides individual status for polling locations (ie total number of active or suspended polling location)**
  - **Provides access to detailed provider status that shows individual status of each polling location associated with a provider**
    - **From this page, an individual polling location can be suspended or resumed accordingly**

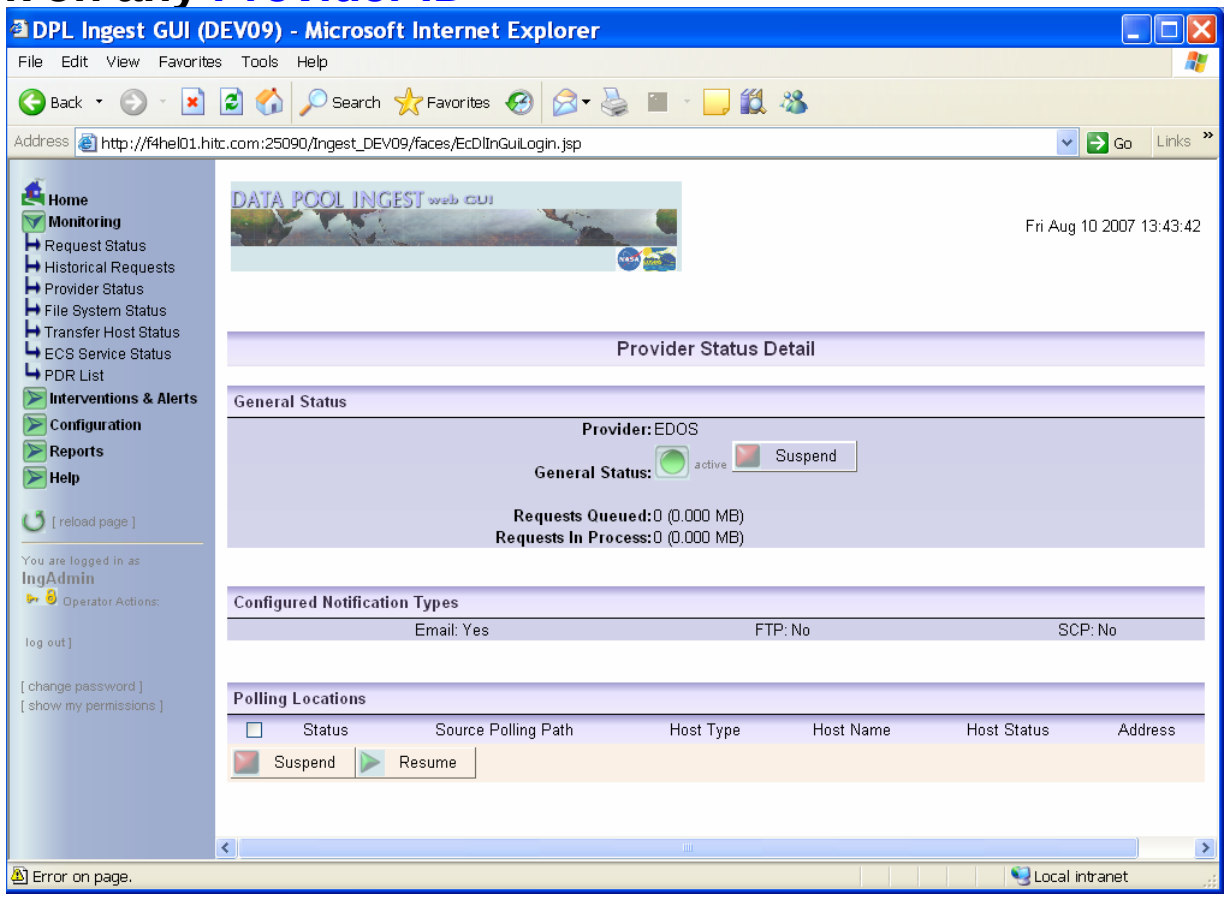
Monitoring – Provider Status (Cont.)

- **Procedure**
  - **Select the DPL Ingest GUI Monitoring link**
  - **Select the Provider Status link**



Monitoring – Provider Status Detail

- **Procedure**
  - **Click on any Provider ID**



Monitoring – Suspend/Resume Provider

- **A provider may be suspended or resumed from the Provider Status page**
  - **Suspending a Data Provider will stop the activation of Ingest Requests from that Provider**
    - **Ingest Requests that are already active will be completed**
  - **Ingest will also stop polling any of the Polling Locations associated with that Data Provider**
    - **No new Requests from that suspended Data Provider will be queued**
    - **If a polling cycle is in progress, the cycle will be completed**
  - **Resuming a Provider will activate Ingest Requests from that provider**

Monitoring – Suspend/Resume Polling Location

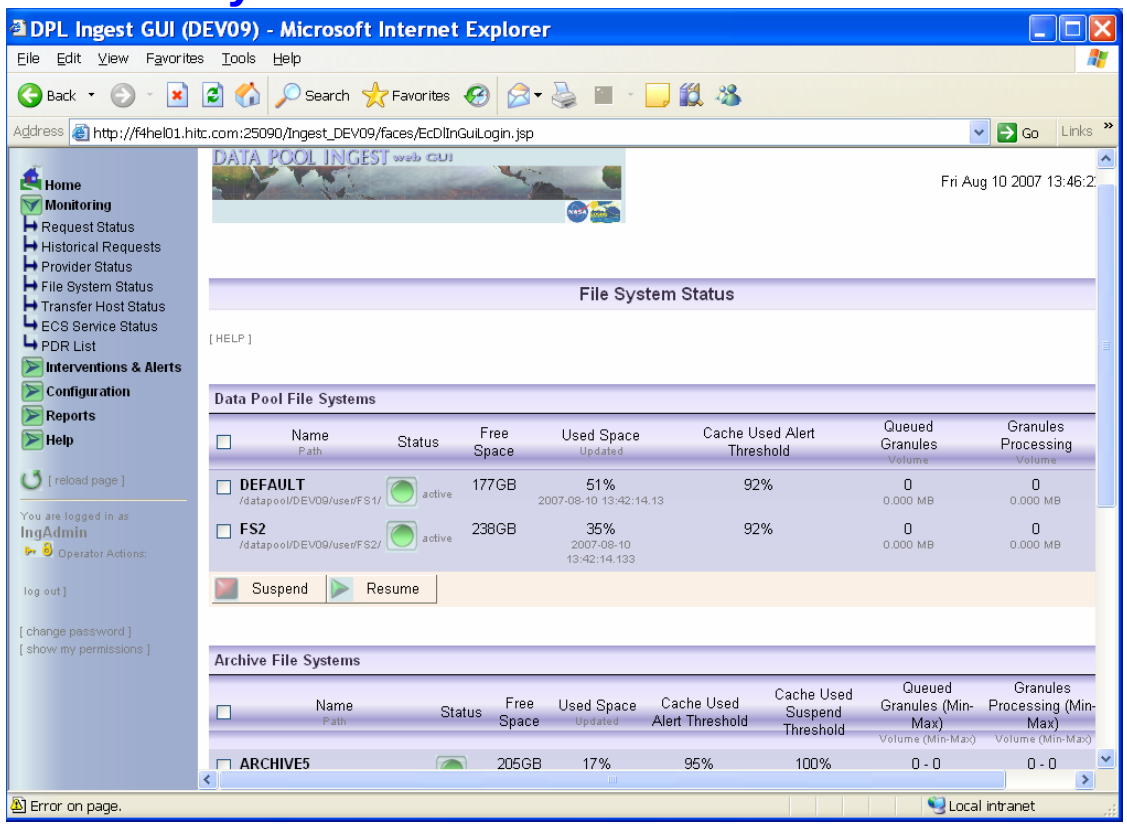
- **A provider may be suspended or resumed from the Provider Status page**
  - **Suspending a Polling Location will stop the activation of Ingest Requests from location**
    - **Ingest Requests that are already active will be completed**
  - **Resuming a Polling Location will activate Ingest Requests from location**

Monitoring – File System Status

- The File System Status page displays the following information on the Data Pool Archive File Systems and Data Pool File Systems:
  - Name(s) and directory paths for Archive and Data Pool File Systems
  - Provides the statuses of the Archive and Data Pool File Systems
    - Active, Suspended by Operator or Suspended by Server
    - This is the only changeable field on this page
    - From this page Archive and Data Pool File Systems can be Resumed or Suspended
  - Provides File System space threshold metrics

Monitoring – File System Status (Cont.)

- **Procedure**
  - **Select the DPL Ingest GUI Monitoring link**
  - **Select the File System Status link**



Monitoring – Suspend/Resume File Systems

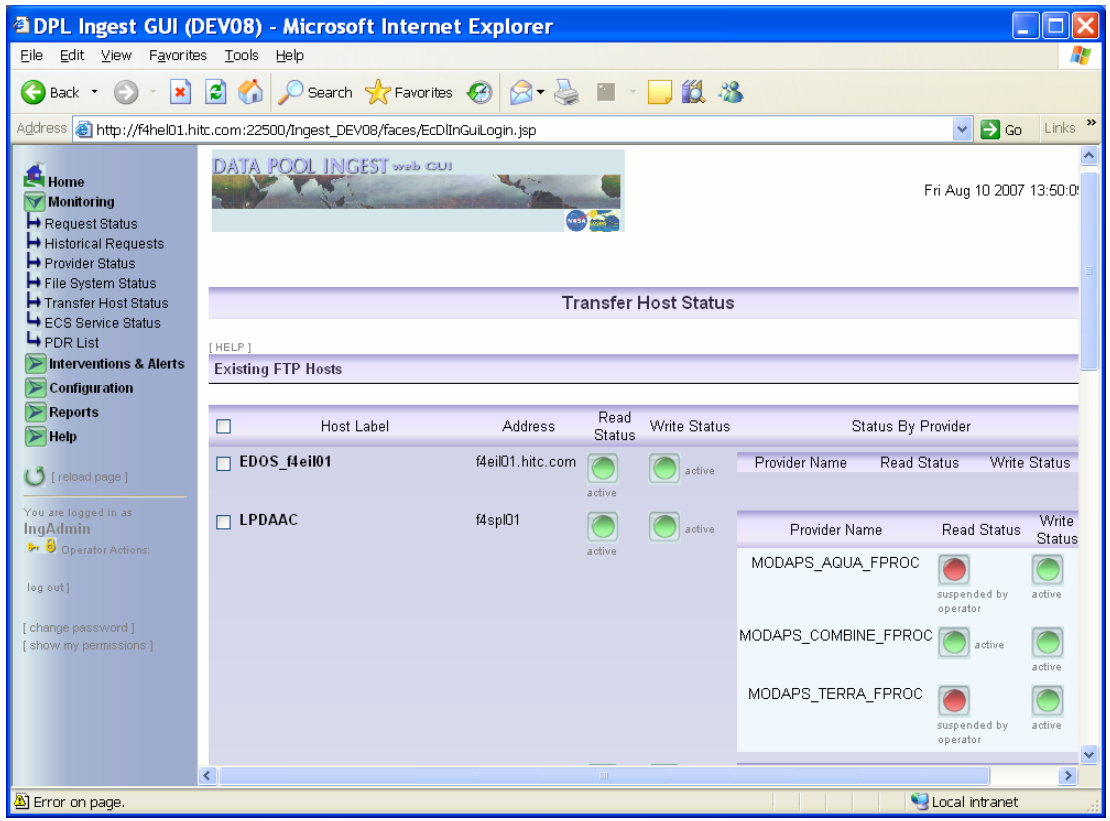
- **Data Pool File System and Archive File System can be suspended or resumed from the File System Status page**
  - **Suspending a File System will prevent the occurrence of any activity on the selected File System**
  - **Resuming a File System will allow activity on a File System to resume**

Monitoring – Transfer Host Status

- **The Transfer Host Status page shows the status of each configured FTP host and Local Host transfers**
  - **These hosts can be suspended or resumed manually**
  - **These hosts can be suspended or resumed by the Data Pool Ingest service**
  - **An Undefined host is generated when the system does not recognize the node name contained in the PDR**

Monitoring – Transfer Host Status (Cont.)

- **Procedure**
  - **Select the DPL Ingest GUI Monitoring link**
  - **Select the Transfer Host Status link**



Monitoring – Transfer Host Status (Cont.)

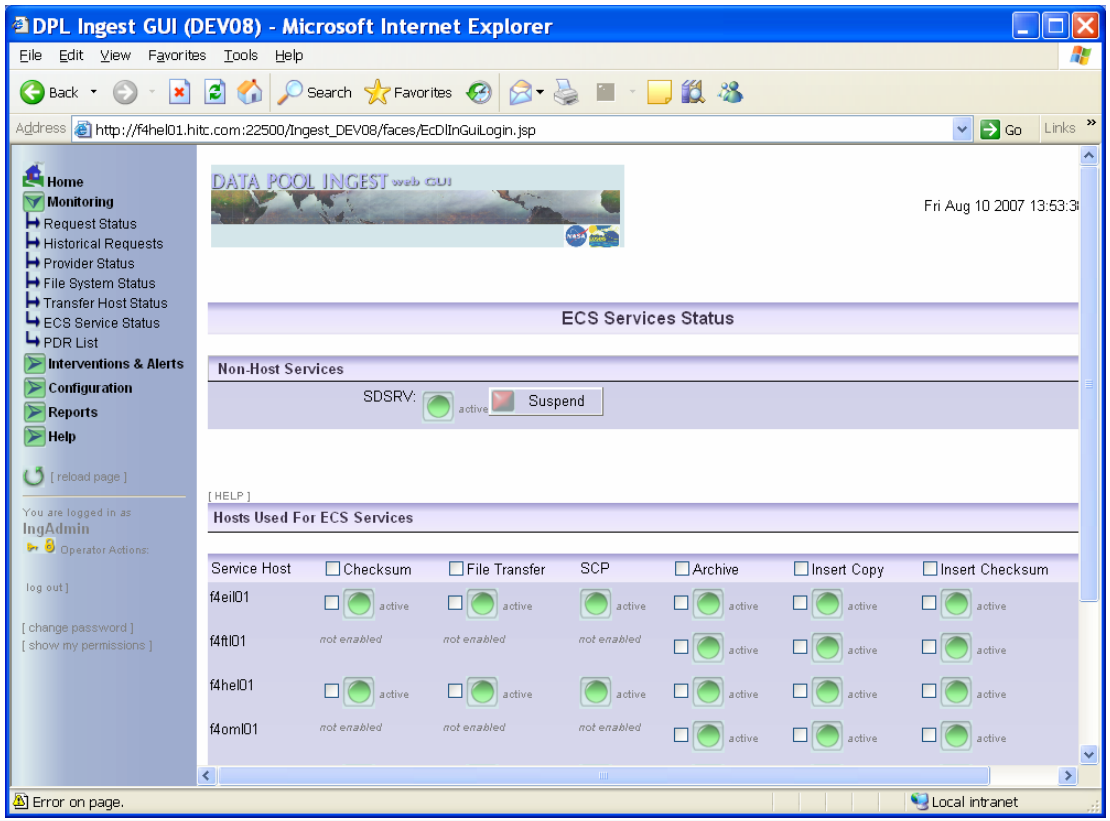
Field Name	Description
Host Label	Label assigned to the host on which the polling location is found
Address	The I.P. address or the canonical name and port number of the host
Read Status	Whether or not read actions (such as polling location listings) are active, suspended by operator, or suspended by server on the host
Write Status	Whether or not write actions (such as transferring notifications) are active or suspended on the host
Status by Provider: Provider Name	Name of a provider with a polling location configured on the host
Status by Provider: Read Status	Whether or not read actions are active or suspended for a specific provider
Status by Provider: Write Status	Whether or not write actions are active or suspended for a specific provider

Monitoring – ECS Service Status

- **Services that can run on any number of hosts that have been configured for that purpose (i.e. checksumming, archiving, and transfers)**
  - **The service on each host is independent of the same type of service on the other hosts, in that its configuration and status is host specific**
    - **For example, checksumming on one host may be suspended but may be operating just fine on the other**
- **Some services exist only once and run on the host on which they were installed (i.e. Science Data Server (SDSRV) Service)**
  - **The DPL Ingest GUI shows only one configuration and status entry for each of those services**
    - **These services are called Non-Host Services**

Monitoring – ECS Service Status (Cont.)

- **Procedure**
  - **Select the DPL Ingest GUI Monitoring link**
  - **Select the ECS Service Status link**



Monitoring – ECS Service Suspend/Resume

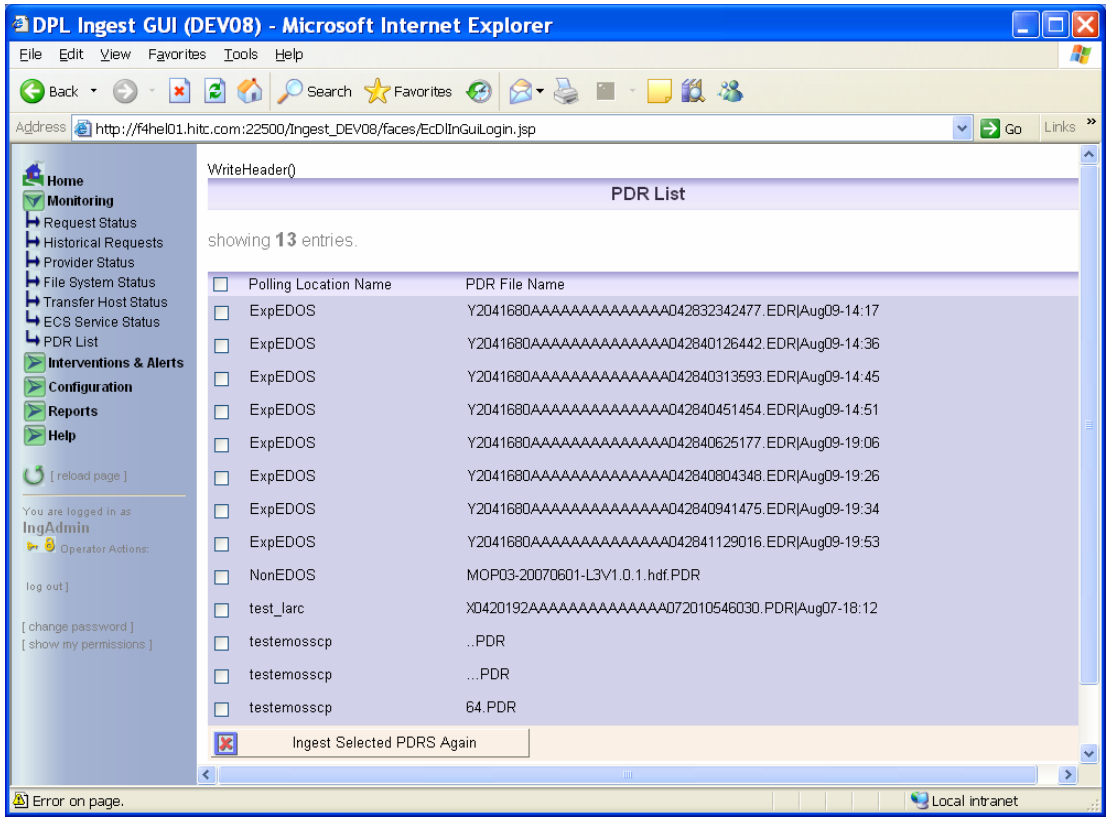
- **Each service can be suspended or resumed**
  - **The status columns show a green (active) or red (suspended) icon**
- **Non-Host services are not tied to a particular host**
  - **These services can be suspended or resumed by simply clicking on the button next to the indicated service status**
    - **Suspending a service on a host specific location, will let all service operations of that type that are currently executing on that host complete**
    - **No new requests for that service will be dispatched to that host**

Monitoring – PDR Lists

- **The PDR List page lists all active PDRs by Polling Location Name and PDR File Name for all PDRs submitted**
  - **Once a provider removes the PDR for the provider polling server, the PDR list will be updated to reflect this change.**
  - **Selecting a PDR from the PDR List allows the operator to re-ingest the data from the selected polling location.**

Monitoring – Re-Ingest a PDR

- **Procedure**
  - **Select the DPL Ingest GUI Monitoring link**
  - **Select the PDR List link**
  - **Select the PDR(s) to be re-ingested**
  - **Select Ingest Selected PDRS Again button.**

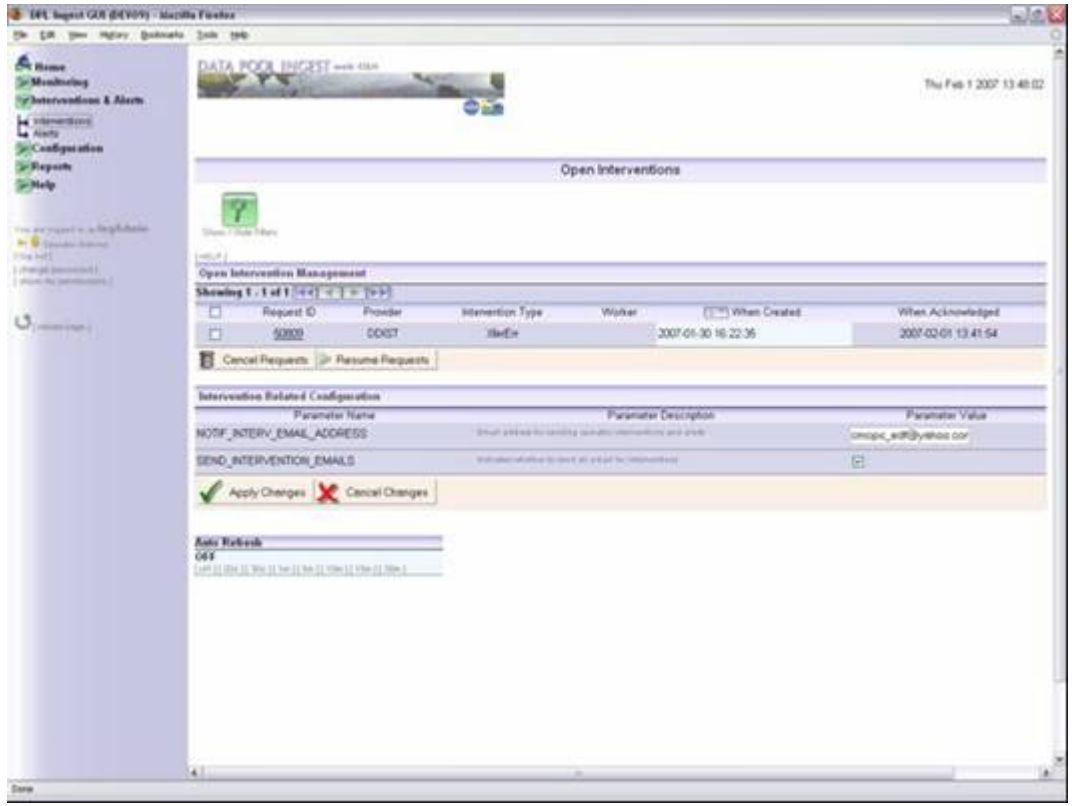


Interventions & Alerts

- **The Interventions & Alerts link provides the operator access to Ingest Requests with open interventions**
  - **The operator may select any eligible request and either cancel the request(s) or resume the request(s)**
- **The Interventions & Alerts link displays Data Pool System Alerts as they are raised in the DPL database**
  - **These warn the operator when the Ingest Service runs into a problem that it believes is associated with a resource or service it is using**
  - **After raising an alert, the Ingest Service will check in regular intervals whether the problem has been resolved and clear the alert if that is the case**
  - **An alert may also be cleared manually once the operator determined that the problem has been resolved**
  - **An operator might do that to avoid waiting until the next auto-retry of the resource**

Open Intervention- Ingest Requests Management

- **Procedure**
  - **Select the Interventions and Alerts link**
  - **Select the Interventions link**
- **Open Intervention Management**
  - **Request ID**
  - **Provider**
  - **Intervention Type**
  - **Worker**
  - **When Created**
  - **When Acknowledged**
  - **Cancel Requests**
  - **Resume Requests**

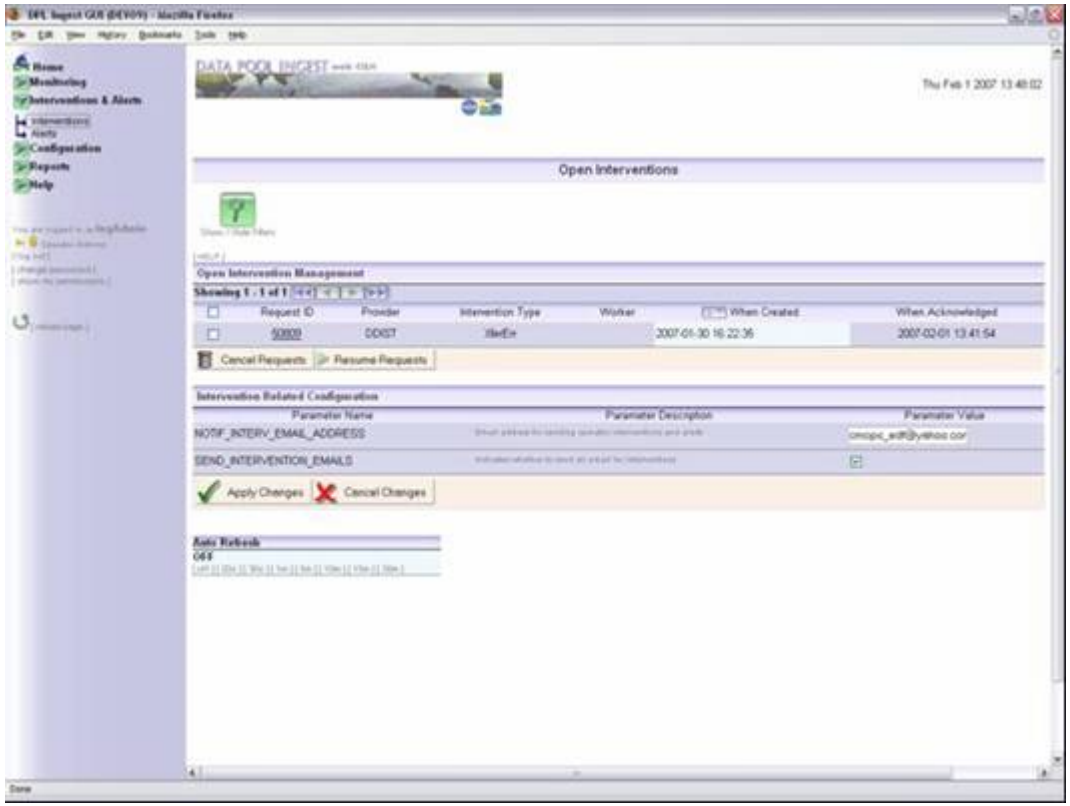


Open Intervention- Ingest Requests Management (Cont.)

Field Name	Description
Request ID	Unique Data Pool Ingest identifier assigned to the request in intervention
Provider	Name of the provider from which the request was obtained
Intervention Type	Type of error encountered during processing of at least one of the request granules (if there are multiple error types encountered in a single request, the type will be “MULTIPLE”)
Worker	Name of a worker assigned to address the intervention
When Created	Time the intervention was generated (which may have been after several retries after the error was first encountered)
When Acknowledged	Time the intervention was first viewed by an operator

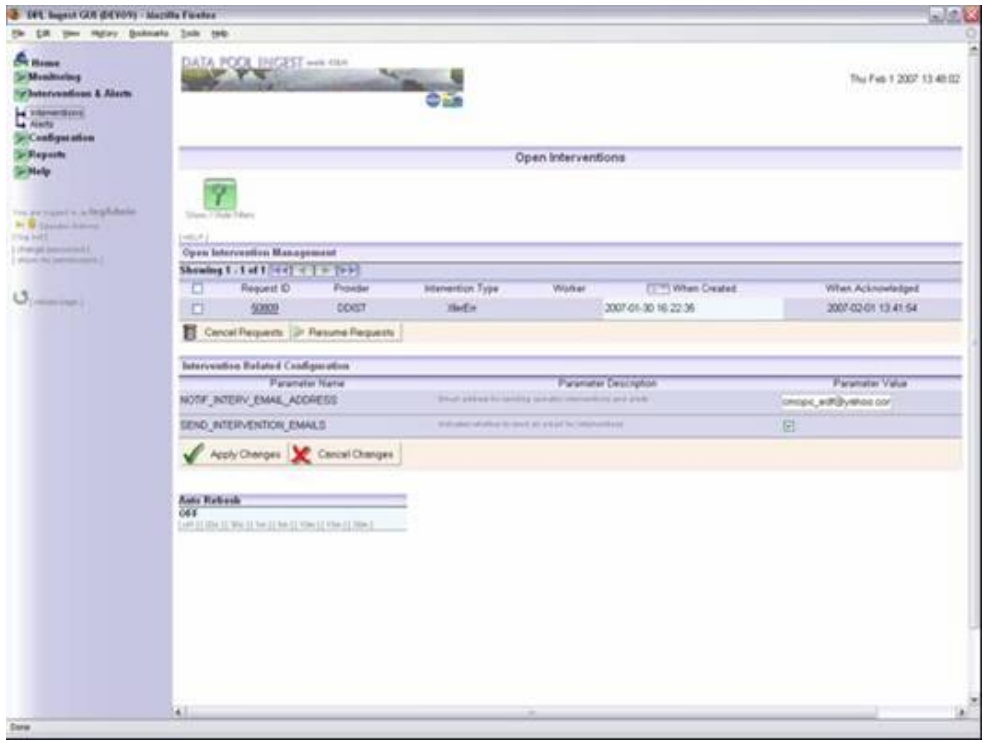
Open Intervention- Intervention Related Configuration

- **Procedure**
  - **Select the Interventions and Alerts link**
  - **Select the Interventions link**
- **Open Intervention Management**
  - **Parameter Name**
  - **Parameter Description**
  - **Parameter Value**
  - **Apply Changes**
  - **Cancel Changes**



Open Intervention- Change E-Mail Configuration

- **Procedure**
  - **Enter the e- mail address in the NOTIFY_INTERV_EMAIL_ADDRESS**
  - **Click on SEND_INTERVENTION_EMAIL field**
  - **Click on Apply Changes button**



Open Intervention- Cancel/Resume Request

- **Procedure**
  - **In the Open Intervention Management section click on the box next to the request to be resumed/cancelled**
  - **Click on the Resume button**
    - **Processing for all granules currently suspended will be resumed**

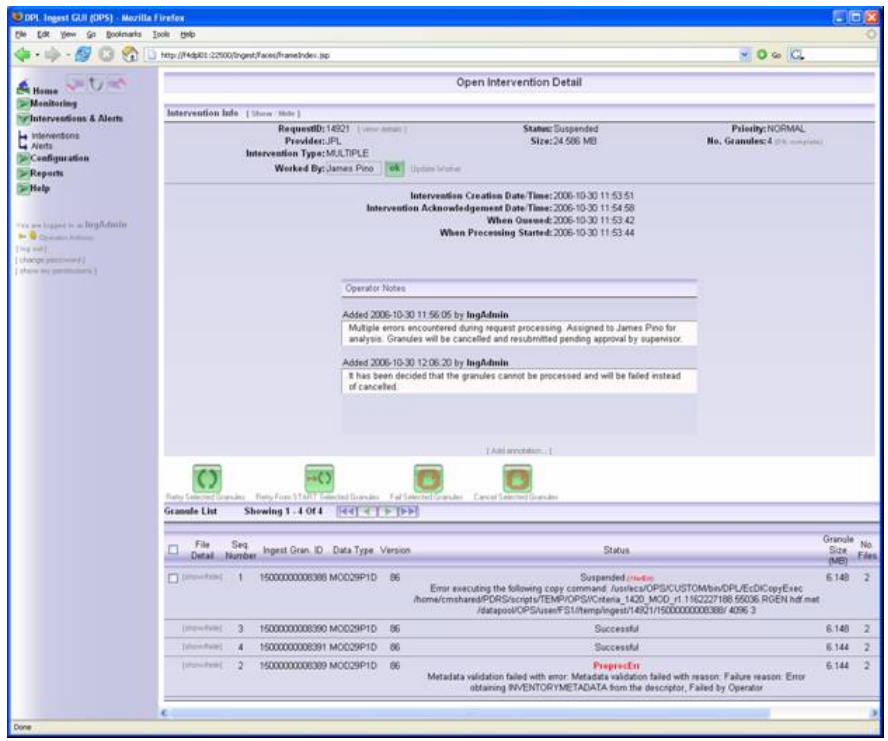
    or
  - **Click on the Cancel button**
    - **Processing for all granules will be terminated**
    - **This action is irreversible**

Open Intervention- Detailed Page

- **The Interventions Detail page is the operator's link to taking action on specific granules that have been intervened**
  - **In the Open Intervention Management section click on the box next to the request to be resumed/cancelled**
  - **The Request information contained in the Open Intervention page is listed at the top of the page**
    - **A list of granule(s) along with detailed information is displayed at the bottom of the page**
  - **An Operator Intervention remains open as long as there are suspended granules**
  - **Once all granules issues have been resolved, the Operator Intervention status will automatically be removed**

Open Intervention- Detailed Page (Cont.)

- **Procedure**
  - **Select the Interventions and Alerts link**
  - **Select the Interventions link**
  - **Click on Request ID**

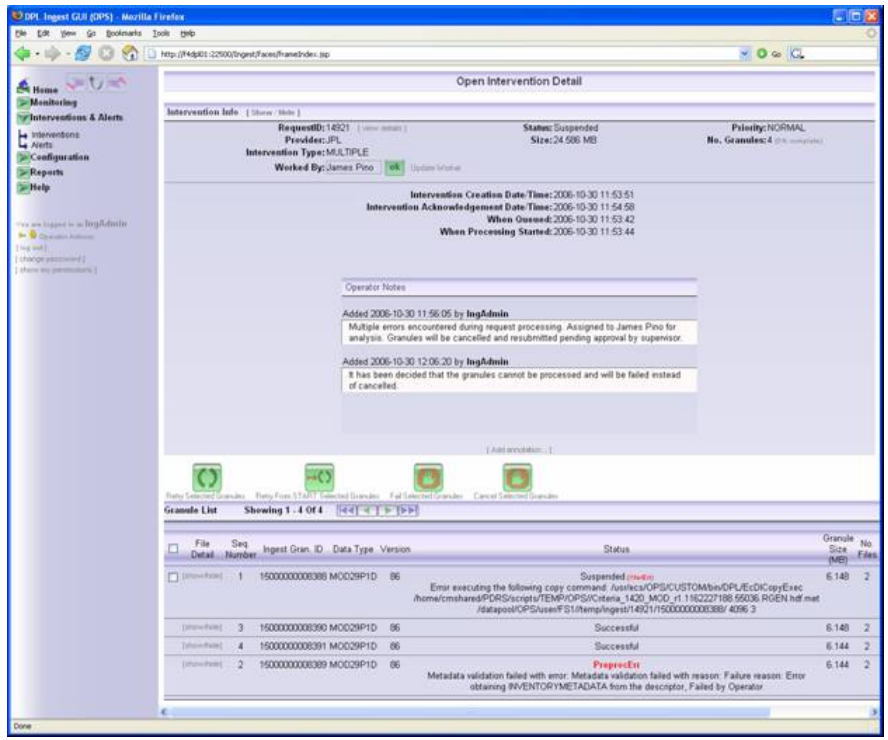


Open Intervention- Changing Granule Status

- **The Interventions Detail page is the operator's link to taking action on specific granules that have been intervened**
- **A list of granule(s) along with detailed information is displayed at the bottom of the page**
  - **An Operator Intervention remains open as long as there are suspended granules**
  - **The operator can take one of several actions to 'close' the intervention**
  - **The suspended granules can be failed**
  - **The suspended granules can be retried in one of two ways**
    - **Retry Granules**
      - **The granule is retried from the last point of processing**
    - **Retry Granules From Start**
      - **The granule is retried from the start of processing, no matter where in the processing chain it failed**
  - **The suspended granule(s) can be canceled**

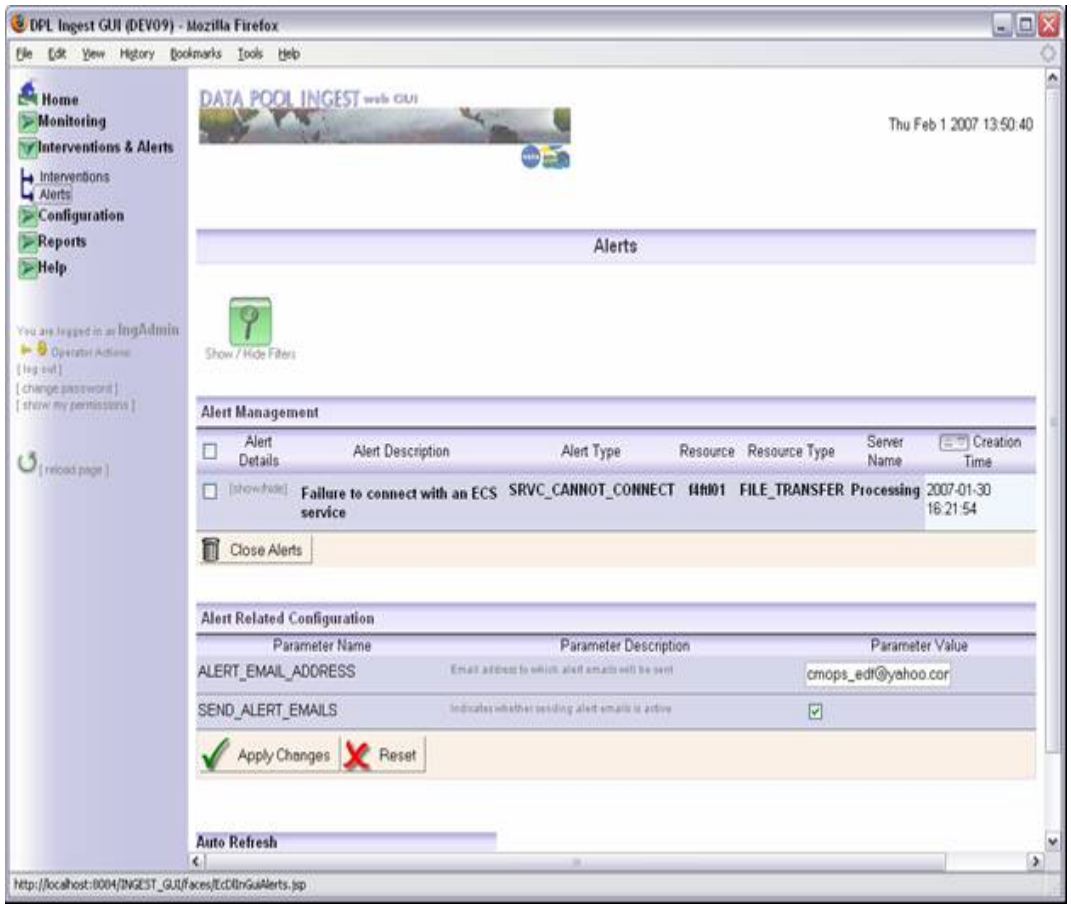
Open Intervention- Changing Granule Status (Cont.)

- **Procedure**
  - Select the **Interventions and Alerts** link
  - Select the **Interventions** link
  - Click on **Request ID**
  - Click on the appropriate button
    - **Fail Selected Granules**
    - **Retry Selected Granules**
    - **Retry Selected Granules From the Start**
    - **Cancel Selected Granules**



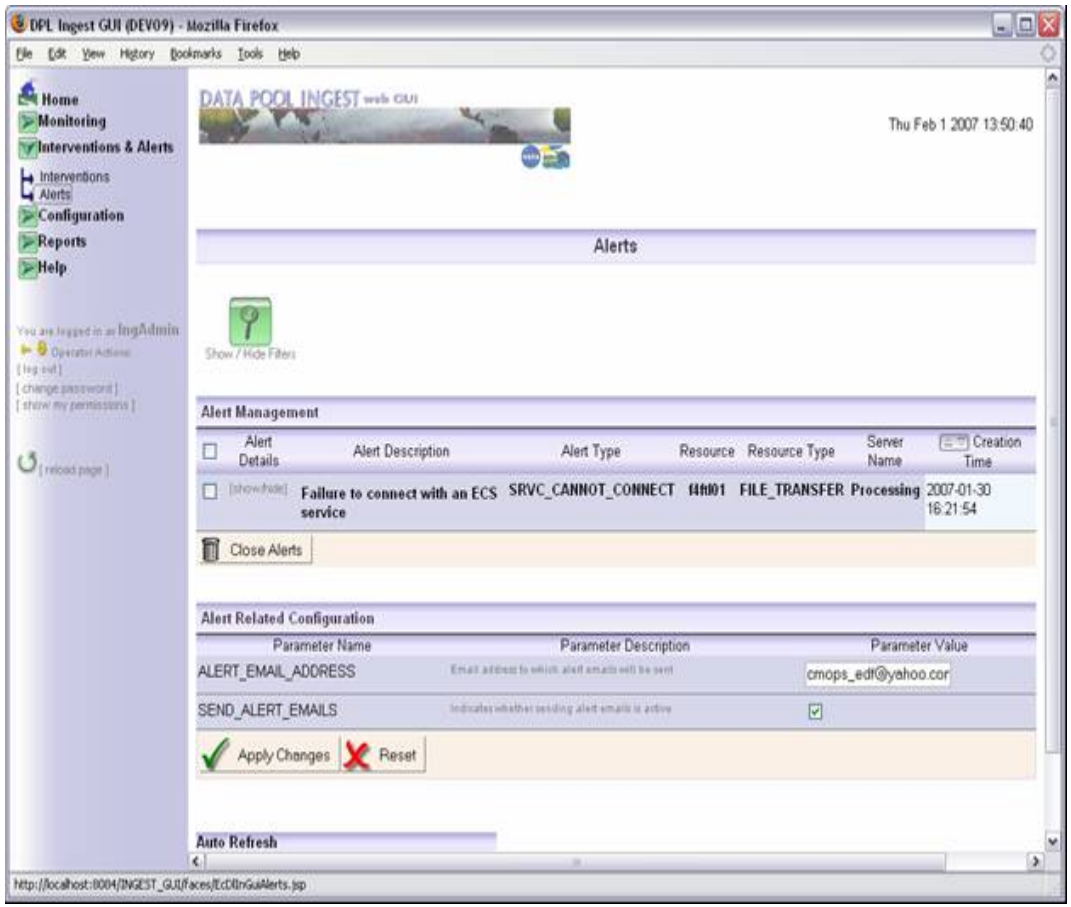
Alerts – Viewing System Alerts

- **Procedure**
  - **Select the Interventions and Alerts link**
  - **Select the Alerts link**
- **Alert Management**
  - **Alert Details**
  - **Alert Description**
  - **Alert Type**
  - **Resource**
  - **Resource Type**
  - **Creation Time**



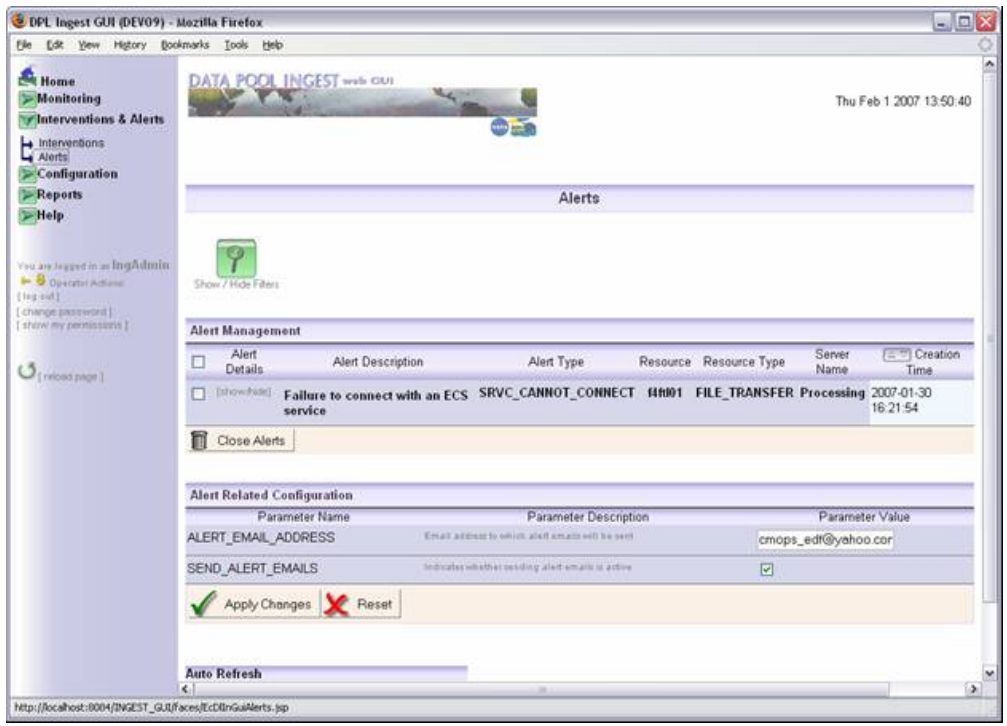
Alerts – Viewing System Alerts (Cont.)

- **Alert Related Configuration**
  - **Parameter Name**
  - **Parameter Description**
  - **Parameter Value**



Alert - Change Alert E-Mail Configuration

- **Procedure**
  - **Enter the e-mail address in the ALERT_EMAIL_ADDRESS**
  - **Click on SEND_ALERTS_EMAIL field**
  - **Click on Apply Changes button**

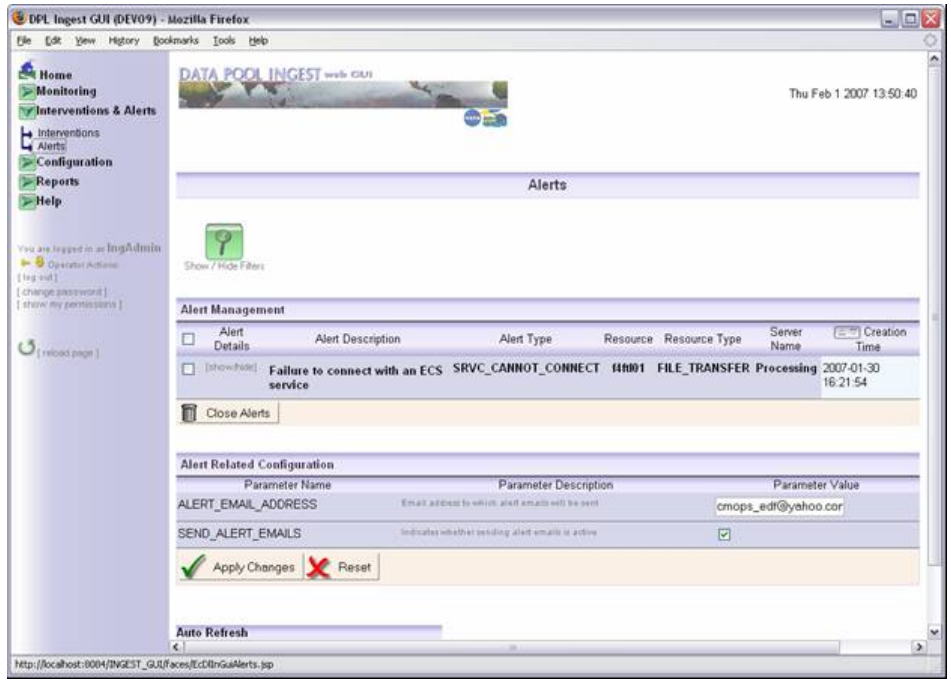


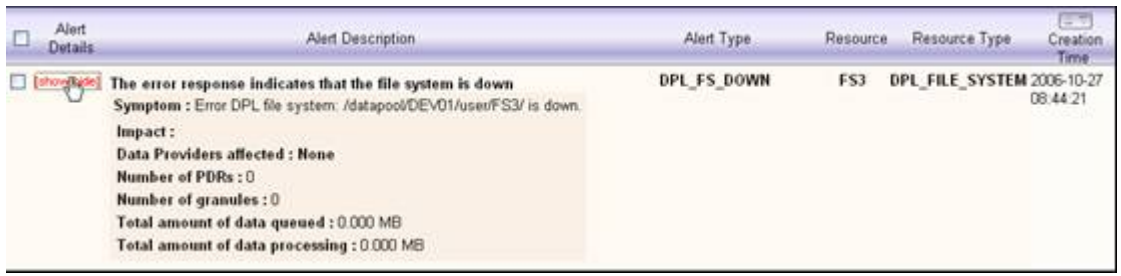
Alerts – Viewing Detail System Alerts Information

- **Procedure**
  - **Select the Interventions and Alerts link**
  - **Select the Alerts link**
  - **Click on the Show/Hide**
- **Alert Details**

(If Resource type is archive or file system)

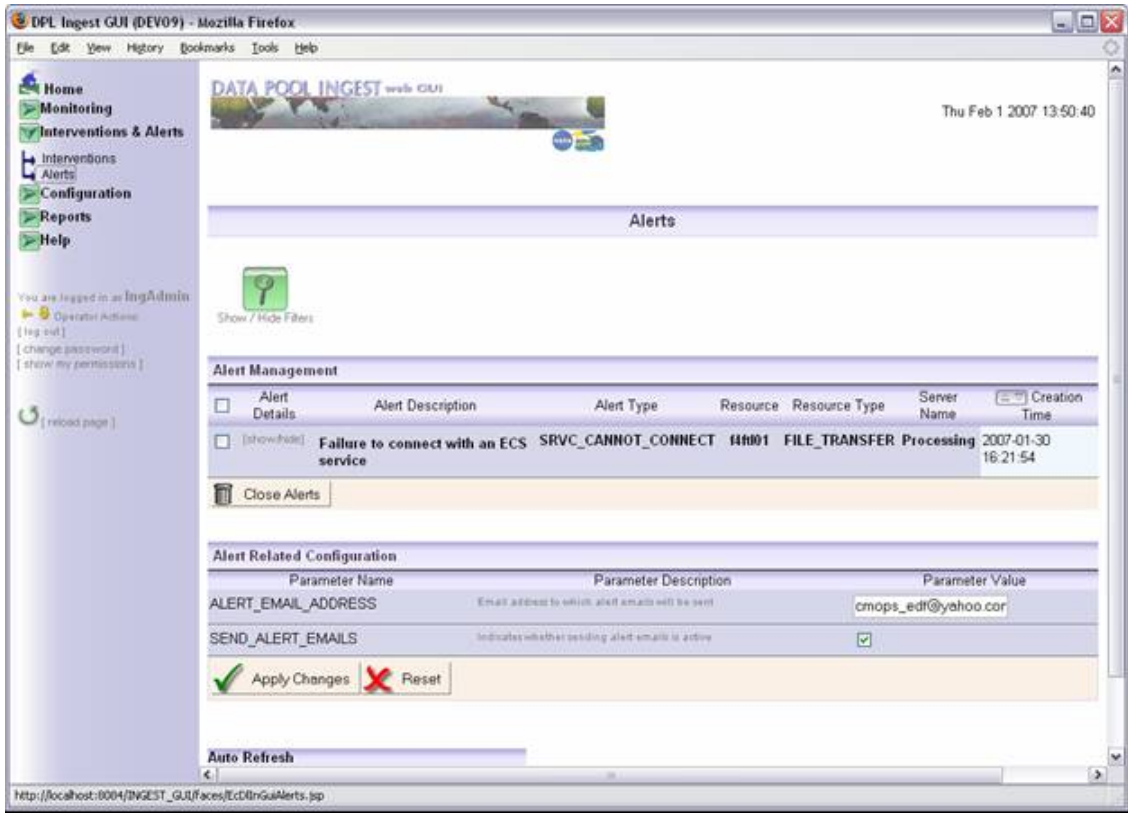
  - **Symptom**
  - **Data Providers affected**
  - **Number of PDRs**
  - **Number of Granules**
  - **Total amount of data queued**
  - **Total amount of data processing**





Alerts – Clearing an Alert

- **Procedure**
  - **Select the Interventions and Alerts link**
  - **Select the Alerts link**
  - **Click on Alert (s) to be cleared**
  - **Click on the Close Alert button**
  - **Select OK to the Confirmation prompt**

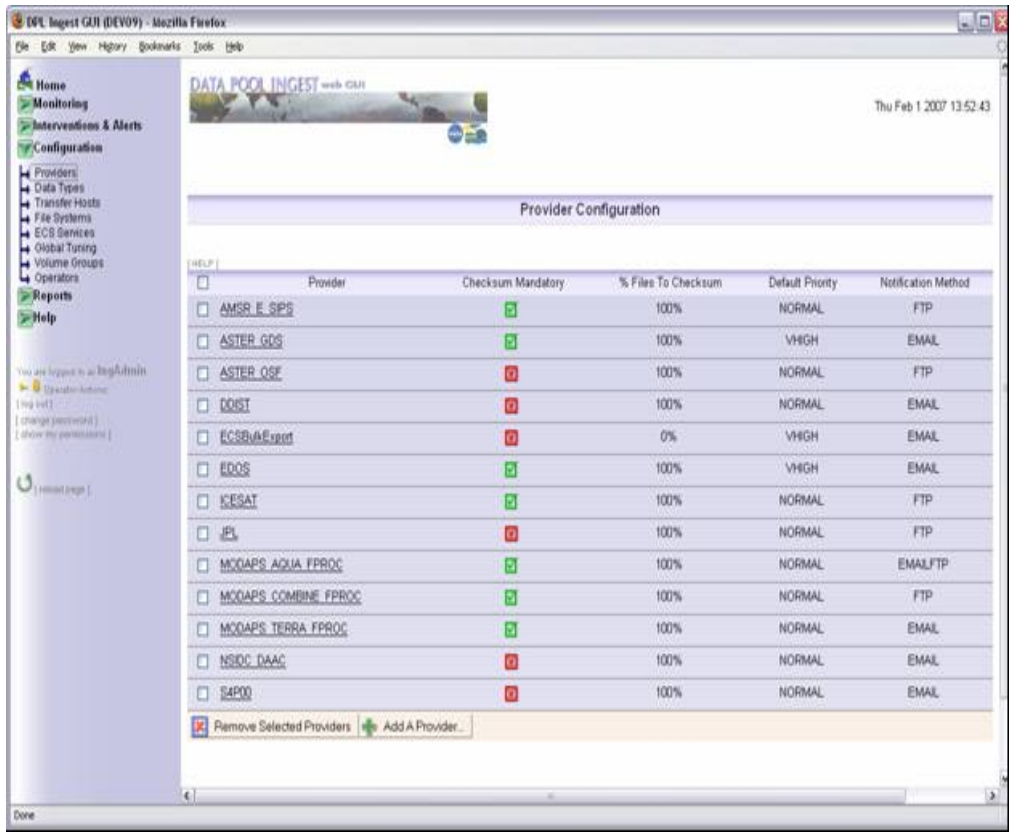


Modifying Configurations

- **The DPL Ingest Configuration pages provide the full-capability operator with a means of modifying (if necessary) the values assigned to the following types of DPL Ingest configuration parameters:**
  - **Providers**
  - **Data Types**
  - **Transfer Hosts**
  - **File Systems**
  - **ECS Services**
  - **Global Tuning**
  - **Volume Groups**
  - **Operators**

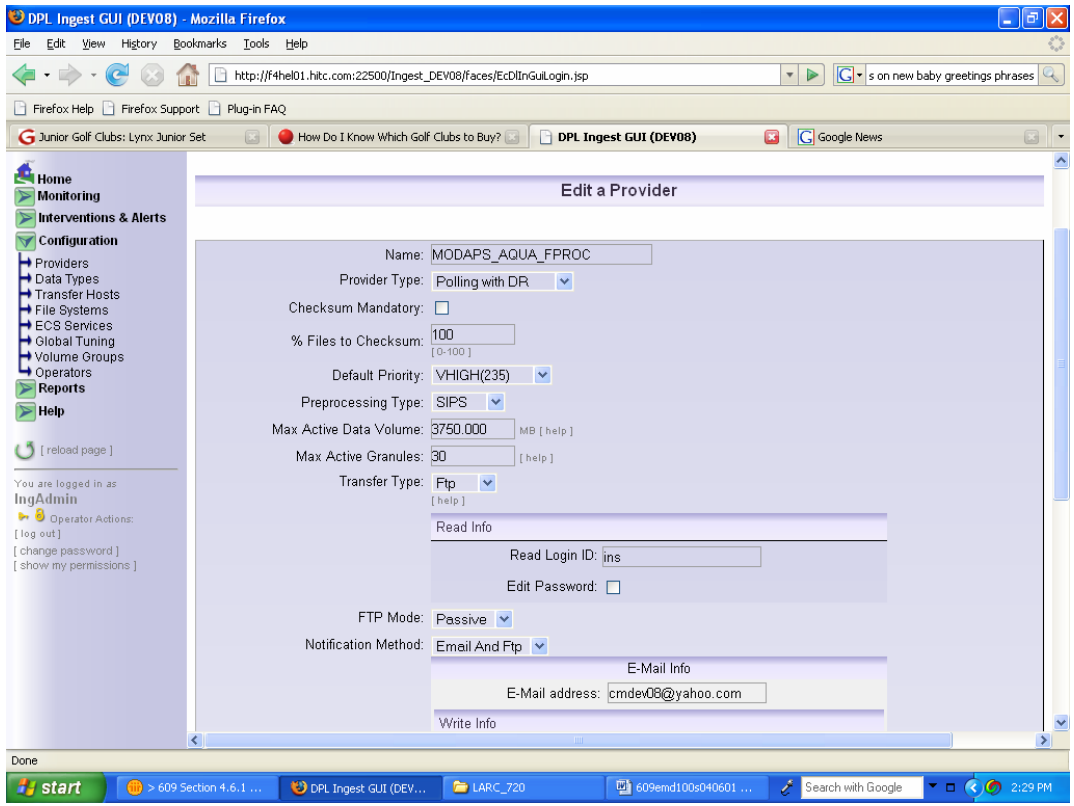
Modify Configuration Providers

- **The Provider Configuration page lists all of the Data Providers for the DPL Ingest System along with the following selected attributes for each Provider**
  - **Checksum Mandatory**
  - **% Files To Checksum**
  - **Default Priority**
  - **Notification Method**
- **Providers can be selected, edited and removed**



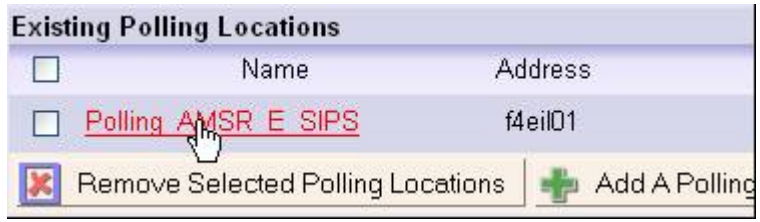
Modifying Configuration – Edit Provider

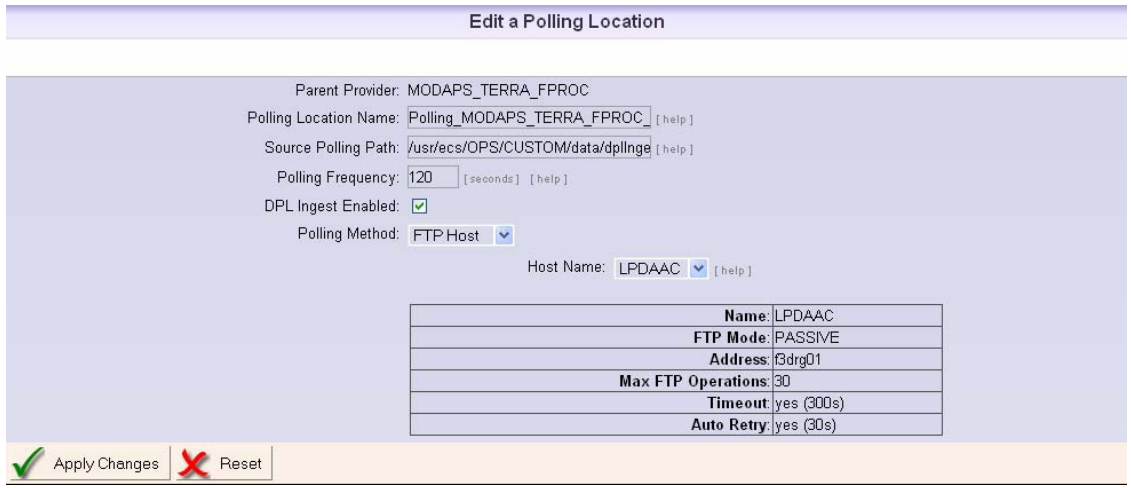
- **Procedure**
  - **Select the Configuration link**
  - **Select the Providers link**
  - **Click on the Provider ID**
  - **Click on the parameter to be changed and make the change**
  - **Select the Apply Changes button**
  - **Select OK to the Confirmation prompt**



Modifying Configurations – Edit Polling Location

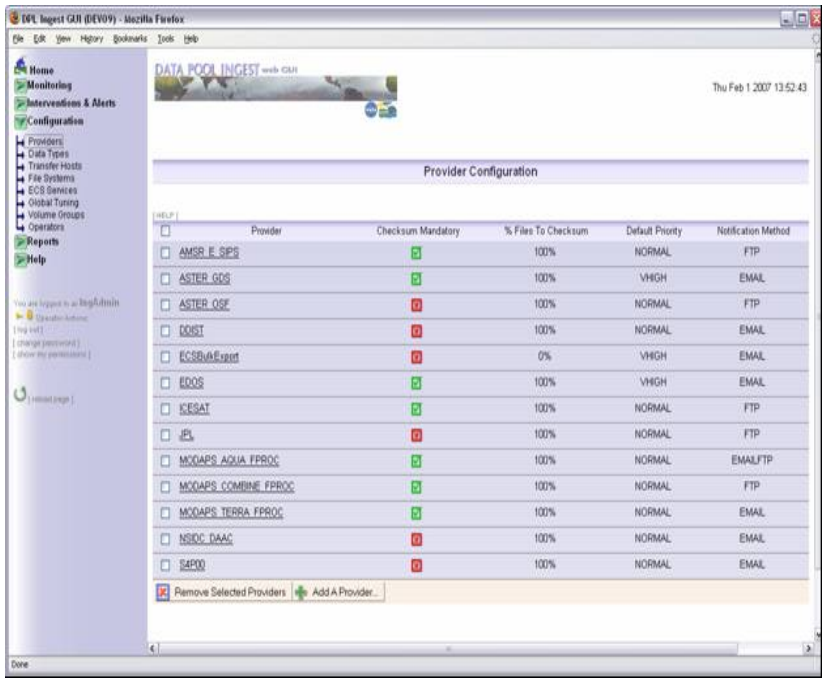
- **Procedure**
  - **Select the Configuration link**
  - **Select the Providers link**
  - **Click on the Provider ID**
  - **Scroll to bottom of information panel**
  - **Click on the Polling Location Name**
  - **Update information as appropriate**
  - **Select the Apply Changes button**
  - **Select OK to the Confirmation prompt**





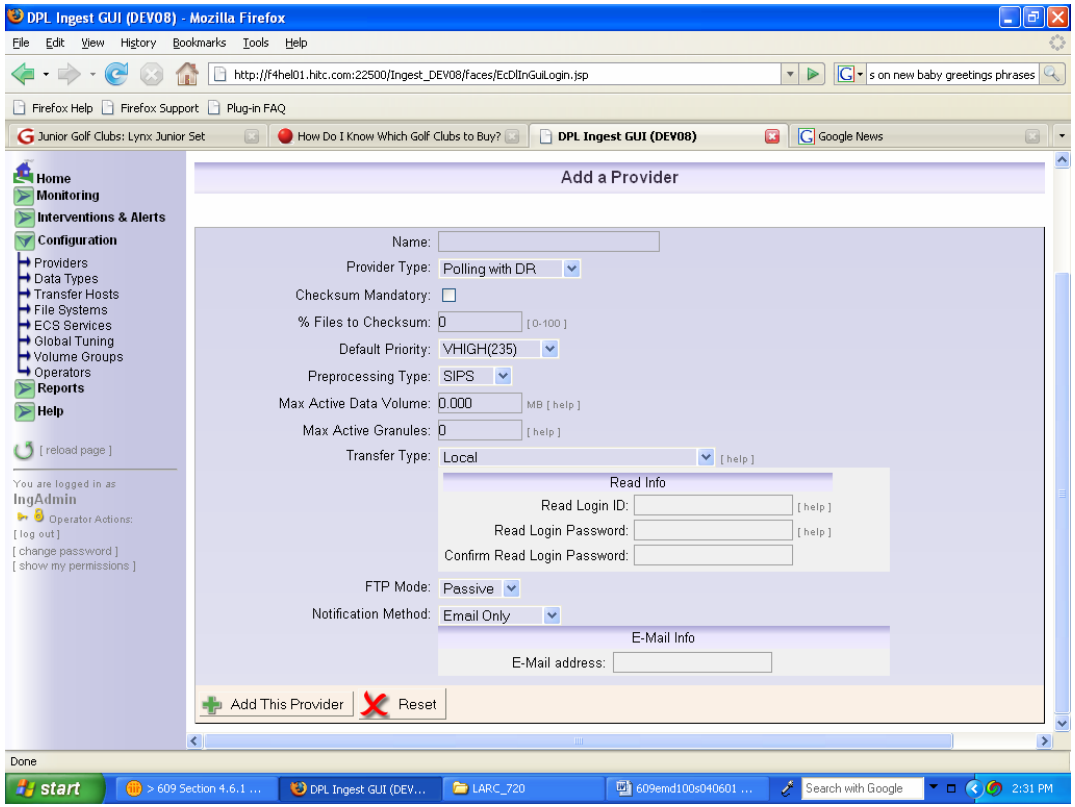
Modifying Configuration – Add a Provider

- **The Provider Configuration page lists all of the Data Providers for the DPL Ingest System along with the following selected attributes for each Provider**
- **New Providers can be added from this page, by selecting the Add Provider button**



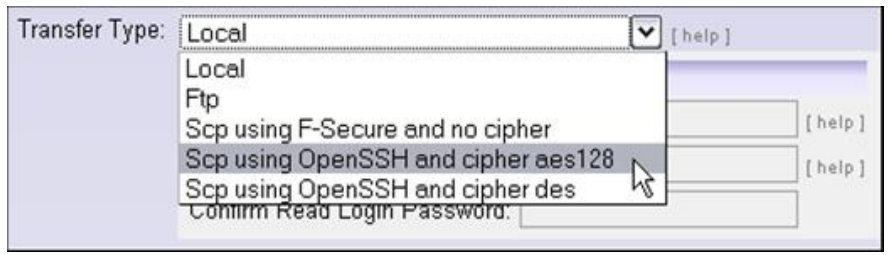
Modifying Configuration – Add a Provider (Cont.)

- **Procedure**
- **On the Add a Provider page enter the following Data Provider parameters**
  - **Enter the Name**
  - **If EDOS, select EDOS from the Provider Type box. This will automatically lock in certain parameters (ie, Preprocessing Type – None, Transfer Type- FTP Only)**
  - **If EMOS, select Polling Without DR from the Provider Type box. Checksum is not performed for this data, Preprocessing Type is automatically set to None**



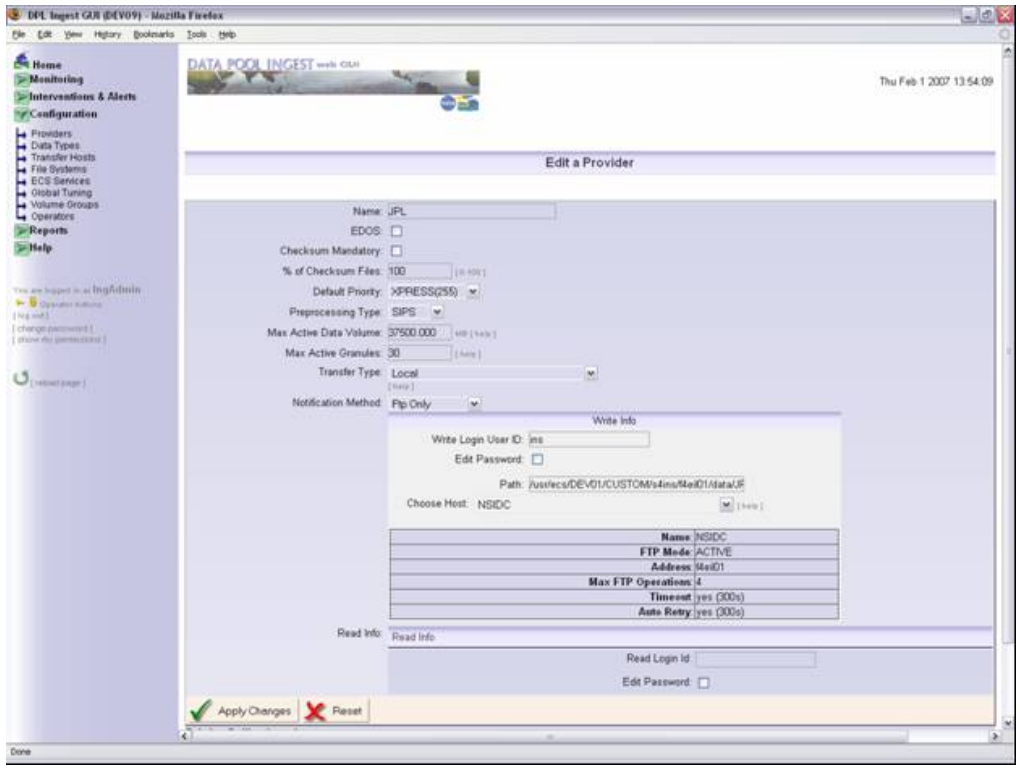
Modifying Configuration – Add a Provider (Cont.)

- **Procedure (Cont.)**
  - Select **Checksum Mandatory**
  - Enter **% Files To Checksum**
  - Enter **Default Priority**
    - Low, Normal, High, VHigh, Xpress
  - Select **Preprocessing Type**
    - NONE
    - SIPS
    - DDIST
  - Enter **Max Active Data Volume**
  - Enter **Max Active Granules**
  - Select **Transfer Type**
    - Local
    - FTP
    - Scp using F-Secure and no cipher
    - Scp using F-Secure and cipher aes128
    - Scp using F-Secure and cipher des



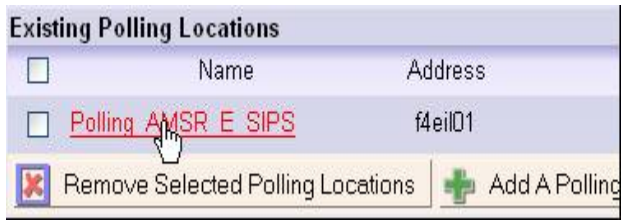
Modifying Configuration – Add a Provider (Cont.)

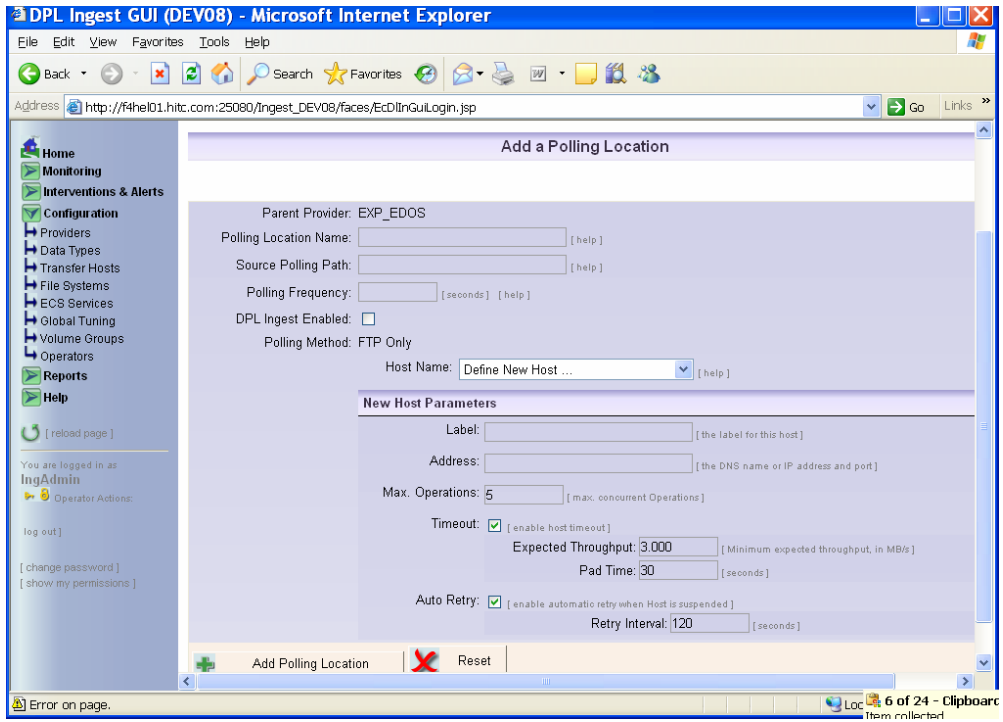
- **Procedure (Cont.)**
  - **Select Notification Method**
    - **Email Only**
    - **FTP Only or SCP Only**
    - **FTP Host**
    - **Local**
  - **Select Add This Provider**
  - **Select OK to confirm**



Modifying Configurations – Add a Polling Location

- **Procedure**
  - Select the **Provider** name
  - Scroll to the bottom of the page and select the **Add A Polling Location** button
  - Enter the **Polling Location Name**
  - Enter the **Source Polling Path**
  - Enter the **Polling Frequency**
  - Choose the **Polling Method**
    - Local Disk. FTP Host, SCP Host
  - Enter **New Host Parameters**
    - Label, Address
  - Select **Add Polling Location** button
  - Select **OK** to the Confirmation prompt



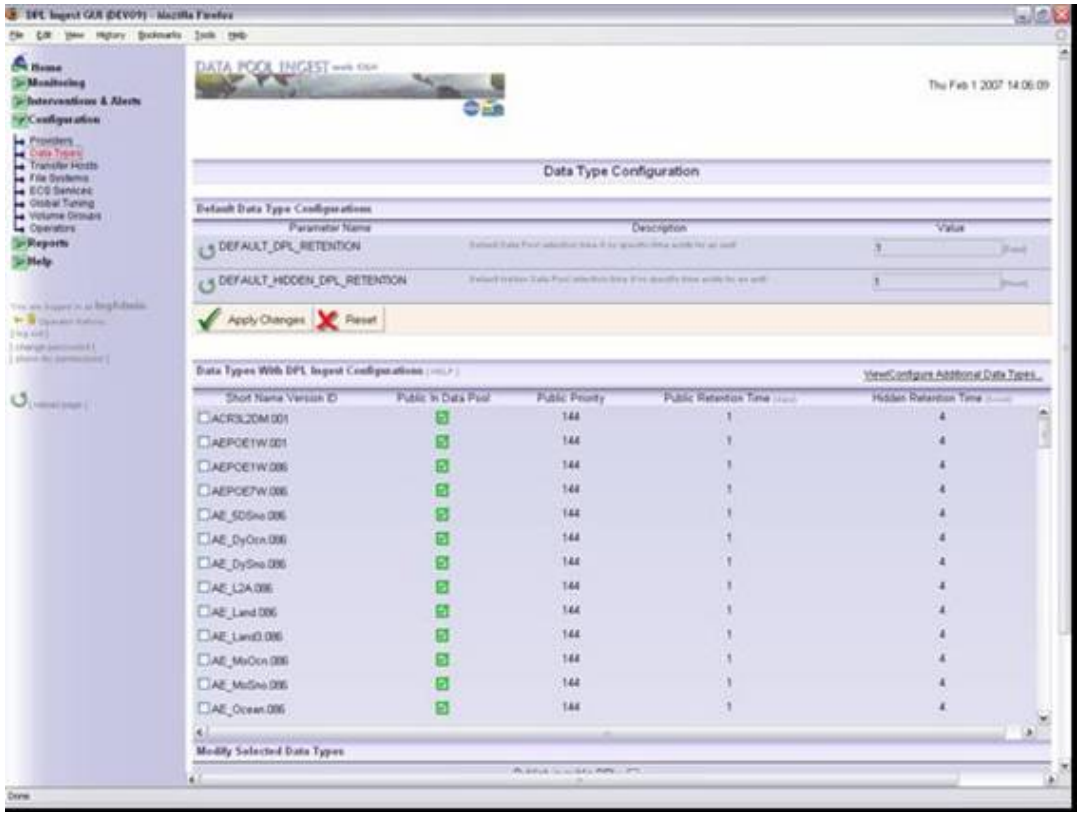


Modifying Configurations – Data Type Default Retention

- **Procedure**
  - **Select the Configuration link**
  - **Select Data Types link**
  - **Enter the Default DPL Retention Value**

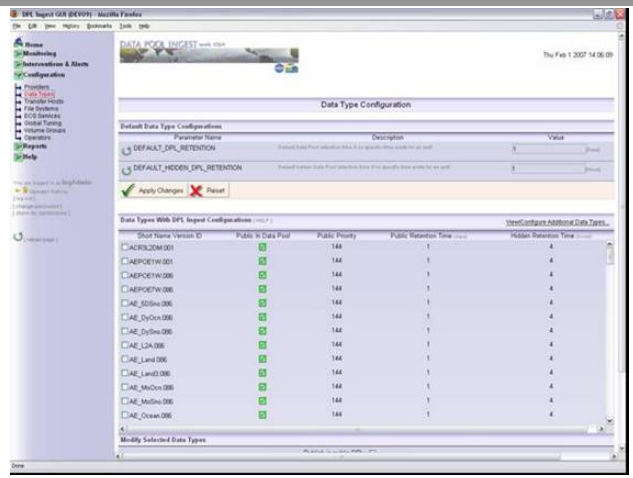
  or

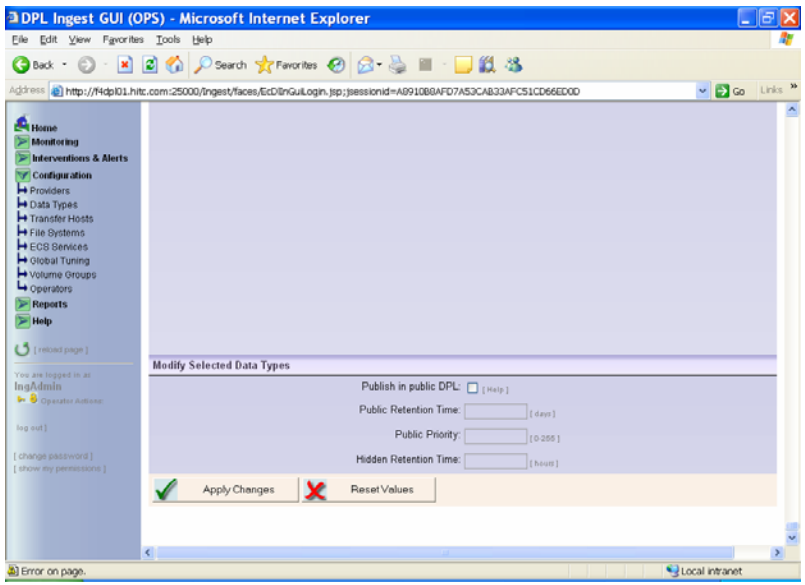
  - **Enter the Default Hidden DPL Retention Value**
  - **Select Apply Changes button**
  - **Select OK to the Confirmation prompt**



Modifying Configurations – Data Type Attributes

- **Procedure**
  - Select the **Configuration** link
  - Select **Data Types** link
  - Select the box next to the **Short Name ID**
  - Scroll to the bottom of the page
  - Make the desired changes for the parameters listed
    - If **Publish in public Data Pool** is enabled, **Public Retention Time** must be entered
    - Otherwise, enter **Hidden Retention Time**
  - Select **Apply Changes** button
  - Select **OK** to the Confirmation prompt



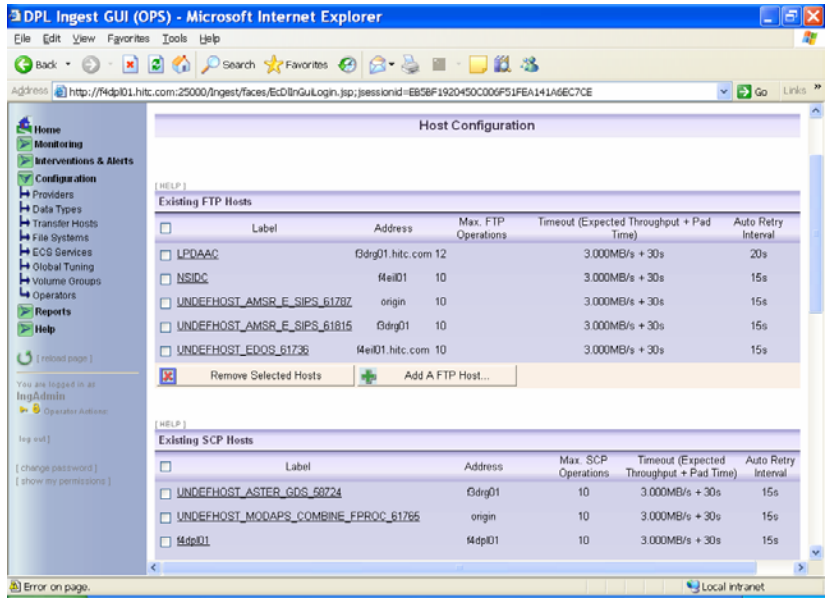


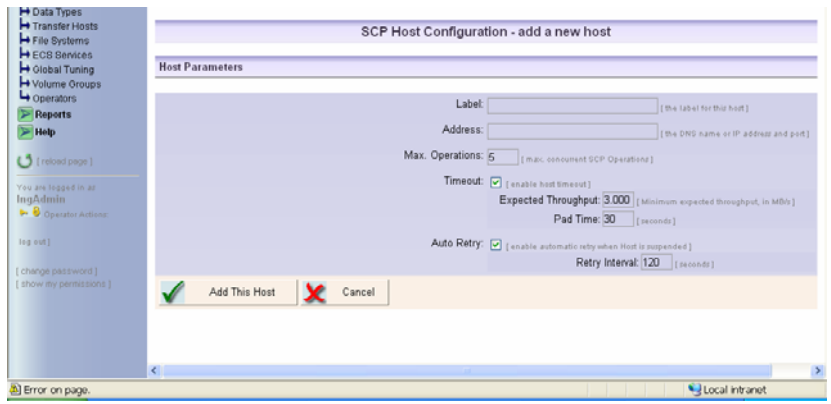
Modifying Configurations – Transfer Host

- The Configuration Transfer Host link allows the operator to manage SCP and FTP hosts for general use in the Data Pool Ingest system
- If the host ip-addresses are referenced within PDRs as the source locations for granule files, DPL Ingest will automatically refer to their definition to obtain time out and retry parameters
- The Ingest operator is able to define default time-out and retry parameters for SCP or FTP hosts
- If a request is sent through processing with a host configured in the PDR that does not show up on the GUI, a new host will automatically be added
  - Default host configuration parameters will be applied to the new host until the operator chooses to modify them

Modifying Configurations – Add SCP or FTP Host

- **Procedure**
  - Select the **Configuration** link
  - Select **Transfer Host** link
  - In the **Existing FTP Host** or **Existing SCP Hosts** section, Select **Add A [FTP/SCP] Host** button
  - Enter **Unique Name** in the **Label** field
  - Enter the **IP Address** in the **Address** field
  - Enter the **Max. Operations** parameter
  - If **Timeout** is selected, enter the **Expected Throughput** and **Pad Time** parameters
  - If **Auto Retry** is selected, enter the **Retry Interval**
  - Select **Add This Host** button



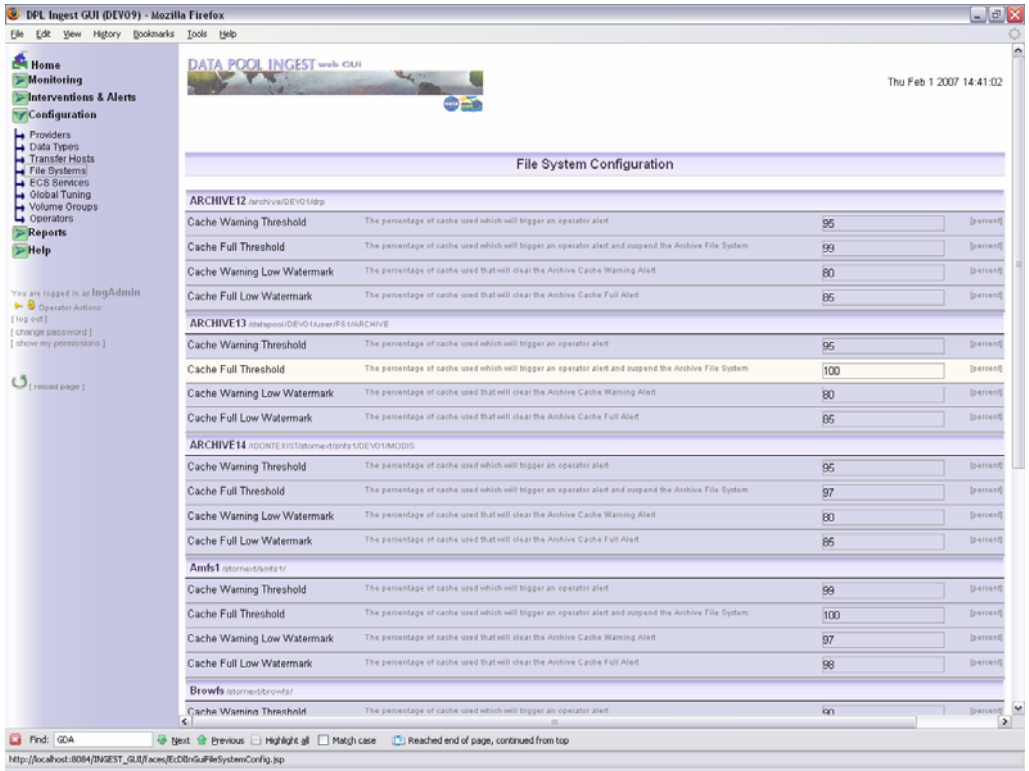


Modifying Configurations – File System

- **The File System Configuration page allows:**
  - **The operator to configure warning thresholds for regular file system or archive file systems**
  - **The operator to configure suspension thresholds for regular file system or archive file systems**

Modifying Configurations – File System (Cont.)

- **Procedure**
  - **Select the Configuration Link**
  - **Select File System link**
  - **All File Systems are displayed with the following thresholds:**
    - Cache Warning Threshold
    - Cache Full Threshold
    - Cache Warning Low Watermark
    - Displays Cache Full Low Watermark
  - **Make changes**
  - **Select the Update button**



Modifying Configurations – ECS Services

- **The ECS Services Configuration page allows the operator to:**
  - **Configure the parameters of ECS services on a specific host**
    - **A default checksum type and algorithm can also be set for use by the checksumming service hosts**
  - **To select the host from which the Science Data Server will be run**
  - **The ECS Services Configuration page contains the following three sections**
    - **Checksum Type and Algorithm Configuration**
    - **Host Used For SDSRV Operations**
    - **ECS Service Host Configuration**

Modifying Configurations – ECS Services (Cont.)

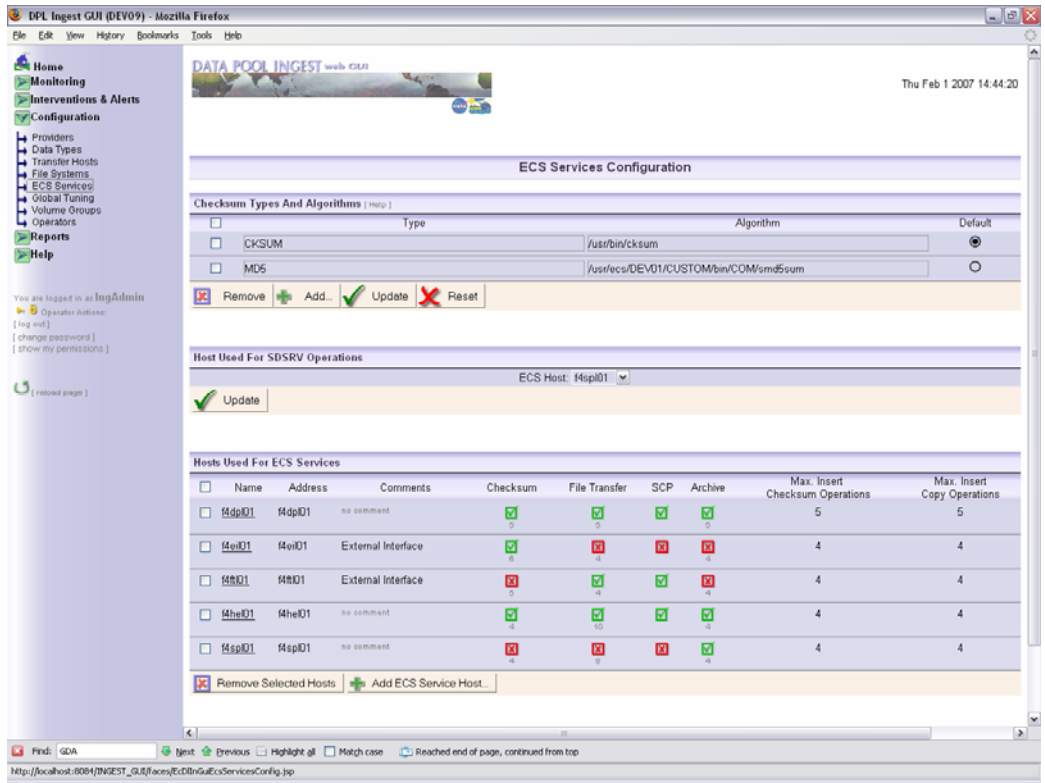
Field Name	Entry	Description
Label	Required	A unique name for the ECS Service host, preferably based on the actual host name.
Address	Required	The IP address (e.g., 127.5.2.88) or canonical name (e.g., f4eil01.hitc.com) of the host.
Port	Required	The port number associated with this service. Hint: the port can be determined by looking at the quickserver's configuration file.
Max. CPU Operations	Required	The total maximum number of checksum operations that may be performed on this host.
Auto Retry	Optional	Whether or not to automatically retry processing of actions for all services enabled on this host.
Comment	Optional	The description of the host and its services.
Checksum:		
Enable this service	Optional	Whether or not to use this service.
Max. Concurrent Checksum Operations	Required if enabled	The maximum number of concurrent checksum operations that may be performed on this host at any one time.
Expected Throughput	Required if enabled	The expected data throughput for checksum operations. This is to identify stuck operations,
Checksum Timeout Pad Time	Required if enabled	The additional delay for a checksum operation before it is considered timed-out.

Modifying Configurations – ECS Services (Cont.)

File Transfer:		
Enable this service	Optional	Whether or not to use this service.
Enable SCP	Optional	Whether or not to use SCP as the file transfer method.
Max Concurrent File Transfers	Required if enabled	The maximum number of concurrent file transfers that may be executed on this host.
Archiving:		
Enable this service	Optional	Whether or not to use this service.
Max Concurrent Archive Operations	Required if enabled	The maximum number of concurrent archive operations that may be executed on this host.
Expected Throughput	Required if enabled	The expected data throughput for archive operations. This is to identify stuck operations.
Archive Timeout Pad Time	Required if enabled	The additional delay for an archive operation before it is considered timed-out.
Insert Checksum:		
Max. Concurrent Insert Checksum Operations:	Optional	The maximum number of concurrent Insert Checksum operations that may be executed on this host.
Insert Copy		
Max. Concurrent Insert Copy Operations	Required	The maximum number of concurrent Insert Copy operations that may be executed on this host.
Expected Throughput	Required	The expected data throughput for Insert Copy operations. This is to identify stuck operations.
Insert Timeout Pad Time	Required	The additional delay for an Insert Copy operation before it is considered timed-out.

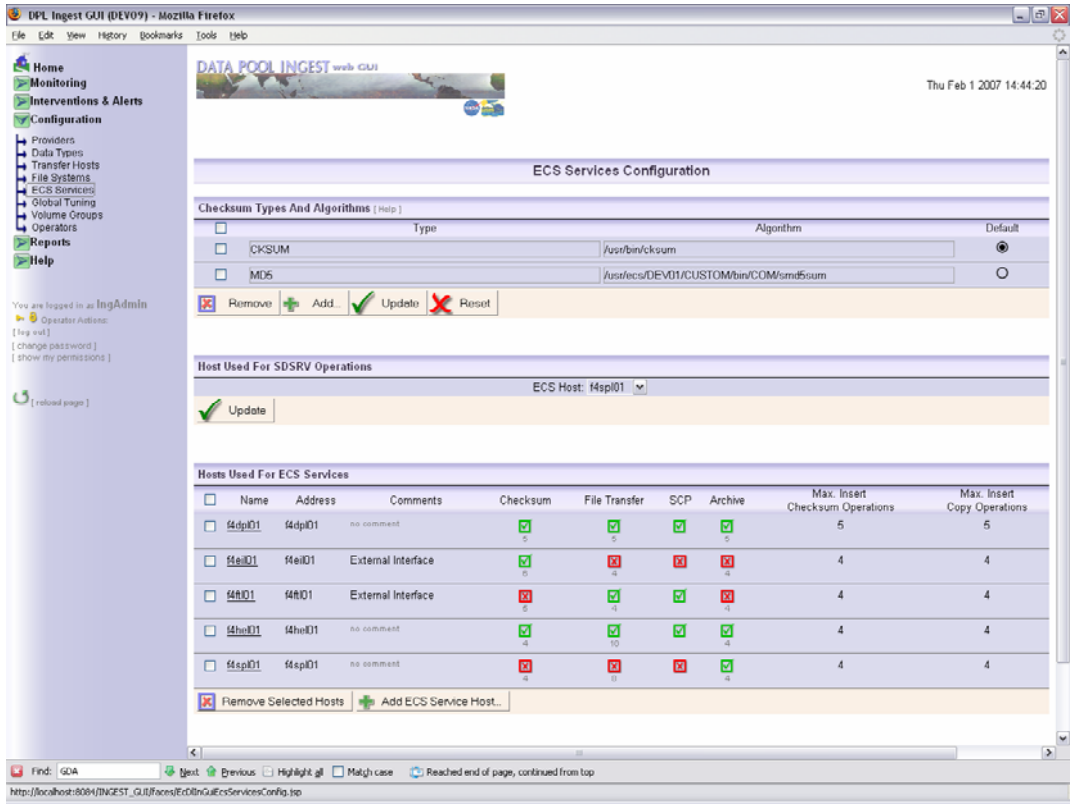
Modifying Configurations – Add Checksum Type

- **Procedure**
  - **Select the Configuration Link**
  - **Select ECS Services Link**
  - **In the Checksum Types and Algorithms, click on the Add button**
  - **Click in the input box next to Type and enter the Checksum Type**
  - **Click in the input box next to Algorithm and enter the Algorithm location**
  - **Select the OK button**



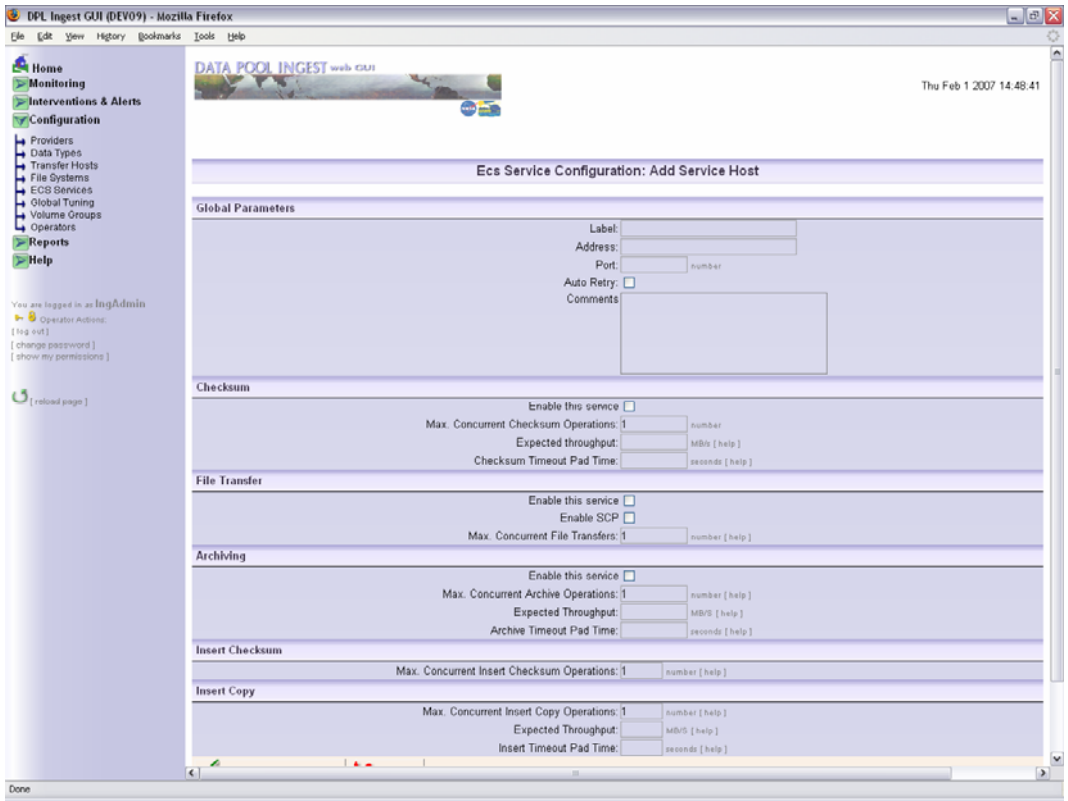
Modifying Configurations – Update Host Used For SDSVR

- **Procedure**
  - **Select the Configuration Link**
  - **Select ECS Services Link**
  - **In the Update Hosts Used For SDSVR Operation section, select the desired host name from the pull-down window**
  - **In the Update Hosts Used For SDSVR Operation section select the Update button**



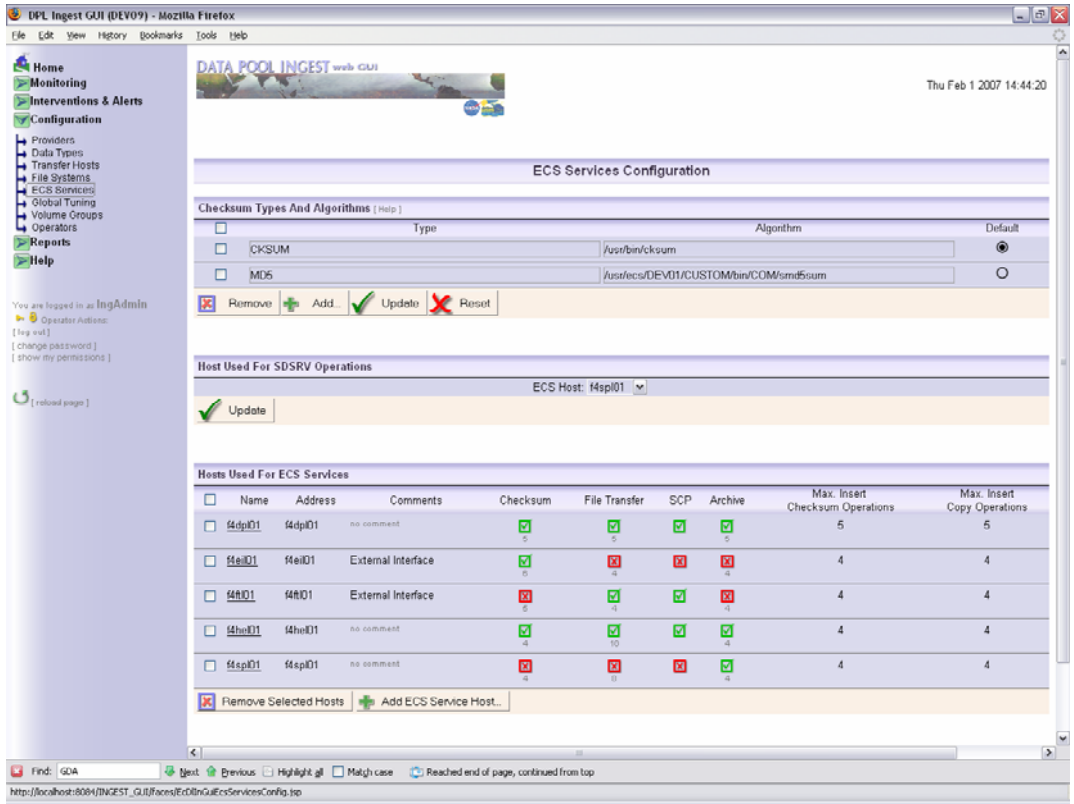
Modifying Configurations – Add ECS Service Host Type

- **Procedure**
  - **Select the Configuration Link**
  - **Select ECS Services Link**
  - **In the Hosts Used For ECS Services section, click on the Add ECS Service Host button**
  - **Enter the Global Parameters**
  - **Enter the Checksum parameters**
  - **Enter the File Transfer parameters**
  - **Enter the Archiving parameters**



Modifying Configurations – Add ECS Service Host Type (Cont.)

- **Procedure (Cont.)**
  - **Enter the Insert Checksum parameter**
  - **Enter the Insert Copy parameters**
  - **Select the Add This Service Host button**



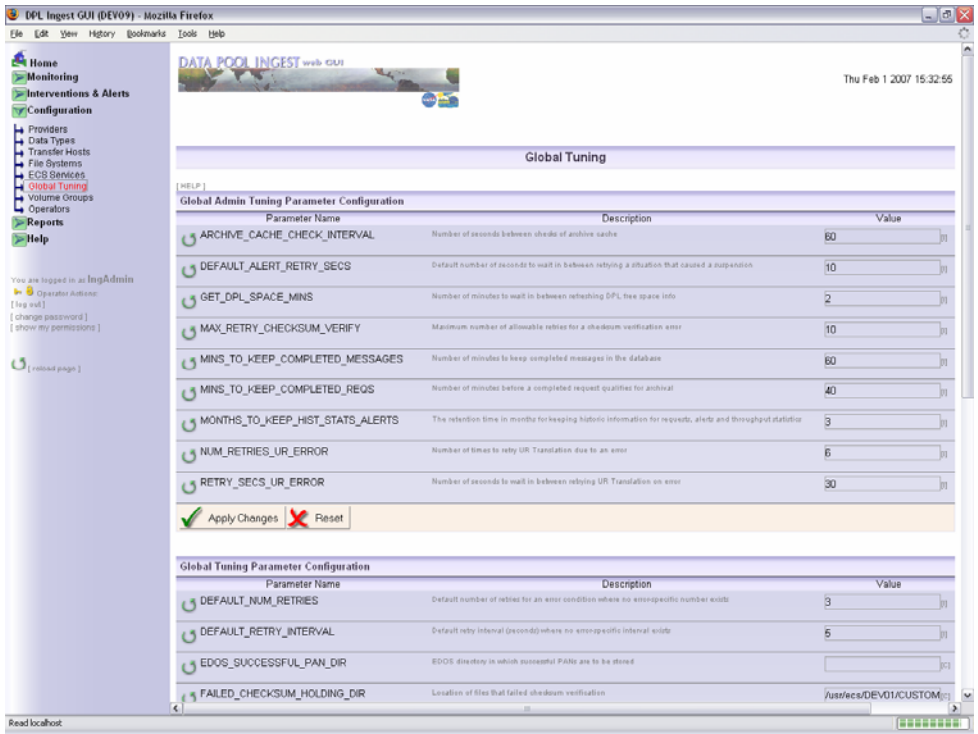
- **Note: An existing service host may be edited by clicking on the [Name] of the desired host located in the Hosts Used For ECS Services section.**

Modifying Configurations – Change Global Tuning

- The Global Tuning link allows the operator to configure the Parameter Name and Value of the global tuning parameters in the Data Pool Ingest database
- Three sections for Global Tuning
  - Global Admin Tuning Parameters
    - Requires Ingest Admin Tuning privileges
  - Global Tuning Parameter Configuration
    - Requires Tuning privileges
  - Database Connection Configuration
    - Requires Tuning privileges
- Dynamic parameters are those that are applied to the Ingest Service without having to restart the Ingest Service
- Static parameters are those that require the Ingest Service to be restarted

Modifying Configurations – Change Global Tuning (Cont.)

- **Procedure**
  - **Reminder: Must have special Ingest Admin or Tuning permissions**
  - **Select the Configuration link**
  - **Select the Global Tuning link**
  - **In the Value field of the Parameter to be changed enter the new value**
  - **Click the Apply Changes button**
  - **Select OK**

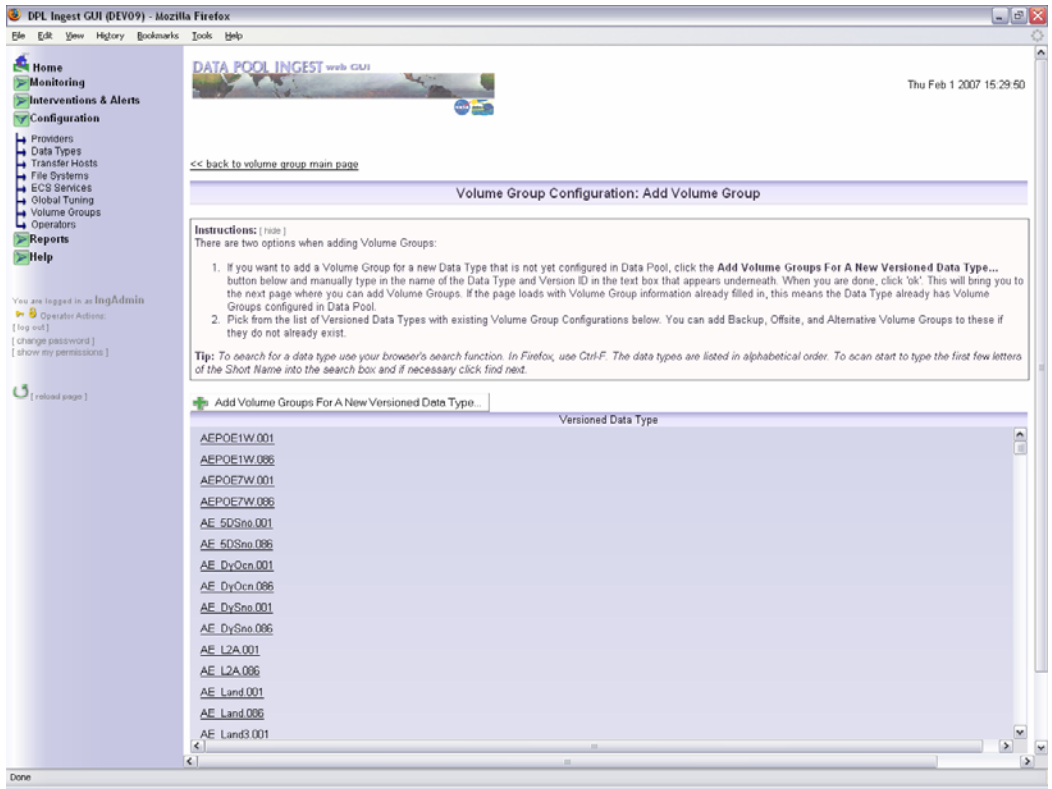


Modifying Configurations – Volume Groups

- **The Volume Group configuration in the DPL Ingest GUI is the same functionality that existed in the STMGT GUI tab prior to release 7.20**
- **The Volume Groups Configuration page is divided into four distinct columns**
  - **Volume Group name**
  - **Path**
  - **HWCI**
  - **Selection date for that volume group**

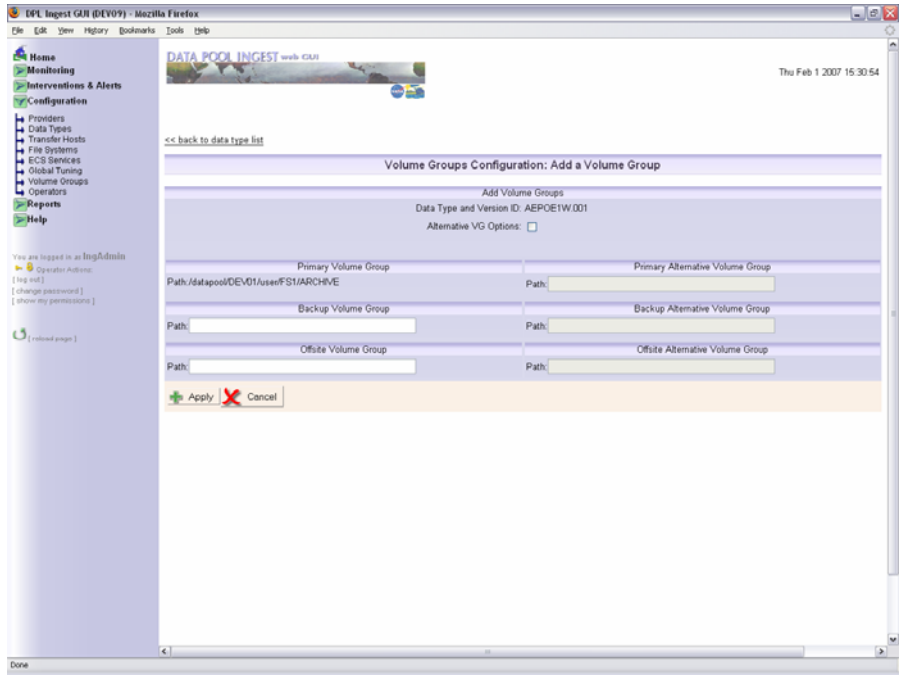
Modifying Configurations – Add Volume Groups- New Data Type

- **Procedure**
  - **Select the Configuration link**
  - **Select the Volume Group link**
  - **Select the Add Volume Group button**
  - **Select the Add Volume Groups For A New Versioned Data Type button**
  - **Enter the Name and Version ID data in the edit window**
  - **Select OK**
  - **Volume Group Configuration: Add a Volume Group window is displayed**



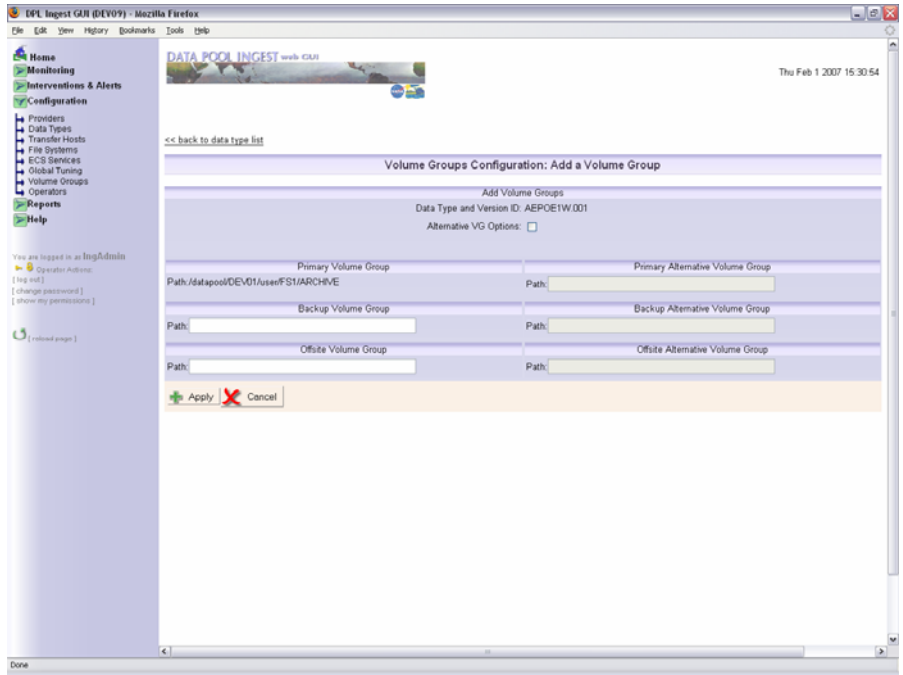
Modifying Configurations – Add Volume Groups New Data Type (Cont.)

- **Procedure (Cont.)**
  - **If Alternate Volume Group was specified, click on Alternate VG box**
  - **If adding Alternate Volume Group history set, click on the Reprocessing or Forward Processing button**
  - **If adding Alternate Volume Group history set, select an appropriate Date to set for storing/retrieving data**



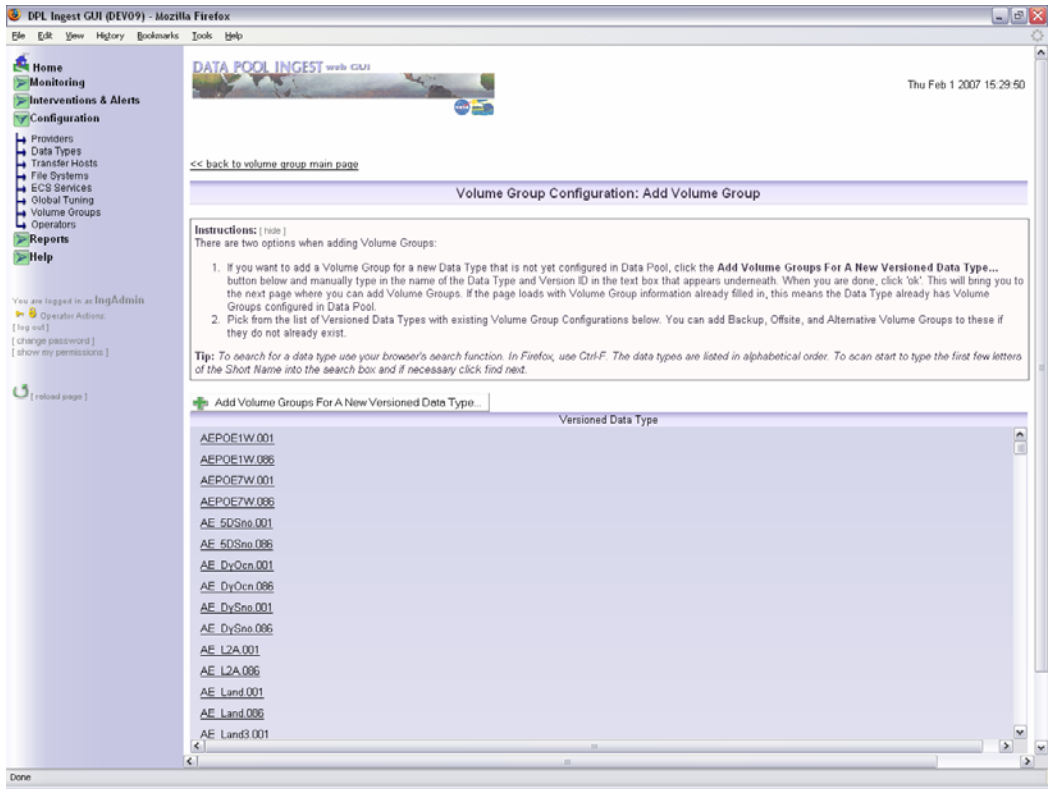
Modifying Configurations – Add Volume Groups New Data Type (Cont.)

- **Procedure (Cont.)**
  - Enter the fully qualified Unix path to the **Primary Archive**
  - Enter the fully-qualified Unix path for the **Primary Alternate Archive**
  - Enter the fully-qualified Unix path for the **Backup Archive**
  - Enter the fully-qualified Unix path for the **Backup Alternate Archive**
  - Enter the fully-qualified Unix path for the **Offsite Archive**
  - Enter the fully-qualified Unix for the **Offsite Alternate Archive**
  - Select in the **Apply** button
  - Select **OK**



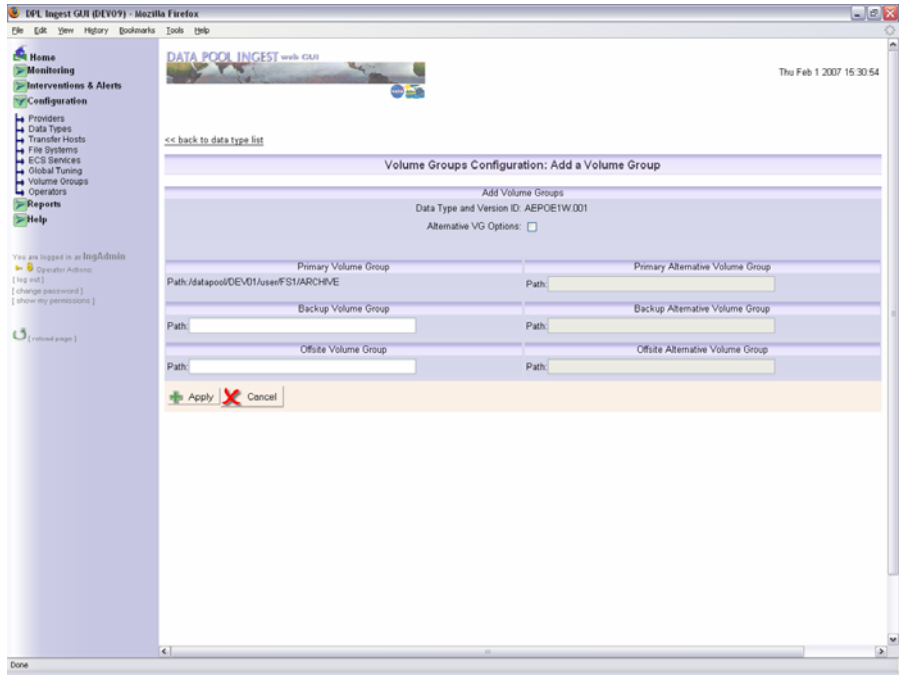
Modifying Configurations – Add Volume Groups Existing Data Type

- **Procedure**
  - **Select the Configuration link**
  - **Select the Volume Group link**
  - **Select the Add Volume Group button**
  - **Click on Versioned Data Type**
  - **Volume Group Configuration: Add a Volume Group window is displayed**



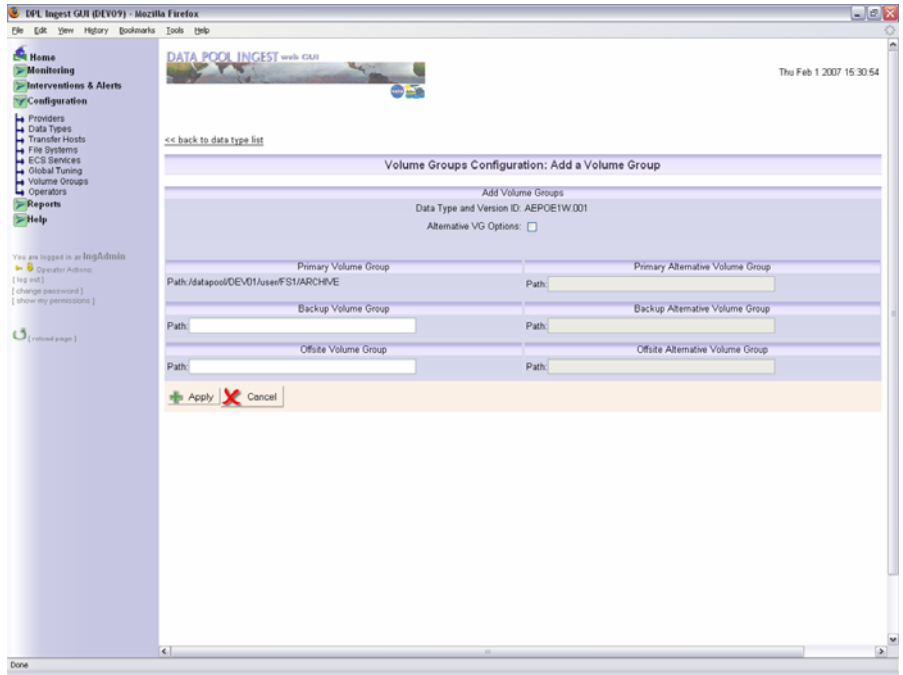
Modifying Configurations – Add Volume Groups Existing Data Type (Cont.)

- **Procedure (Cont.)**
  - **If Alternate Volume Group was specified, click on Alternate VG box**
  - **If adding Alternate Volume Group history set, click on the Reprocessing or Forward Processing button**
  - **If adding Alternate Volume Group history set, select an appropriate Date to set for storing/retrieving data**



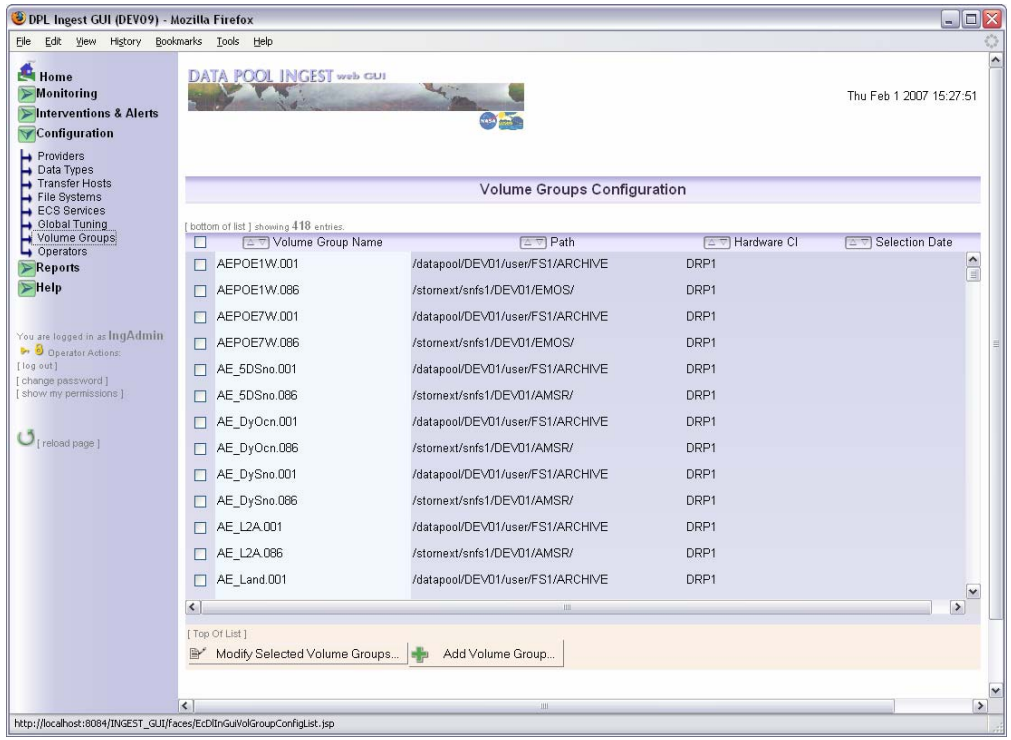
Modifying Configurations – Add Volume Groups Existing Data Type (Cont.)

- **Procedure (Cont.)**
  - Enter the fully qualified Unix path to the **Primary Archive**
  - Enter the fully-qualified Unix path for the **Primary Alternate Archive**
  - Enter the fully-qualified Unix path for the **Backup Archive**
  - Enter the fully-qualified Unix path for the **Backup Alternate Archive**
  - Enter the fully-qualified Unix path for the **Offsite Archive**
  - Enter the fully-qualified Unix for the **Offsite Alternate Archive**
  - Select in the **Apply** button
  - Select **OK**



Modifying Configurations – Modify Volume Groups

- **Procedure**
  - **Select the Configuration link**
  - **Select the Volume Group link**
  - **Click on the box next to the Volume Group Name**
  - **Click on the Modify Selected Volume Groups button**
  - **Enter the new Volume Group Path**
  - **Select OK**

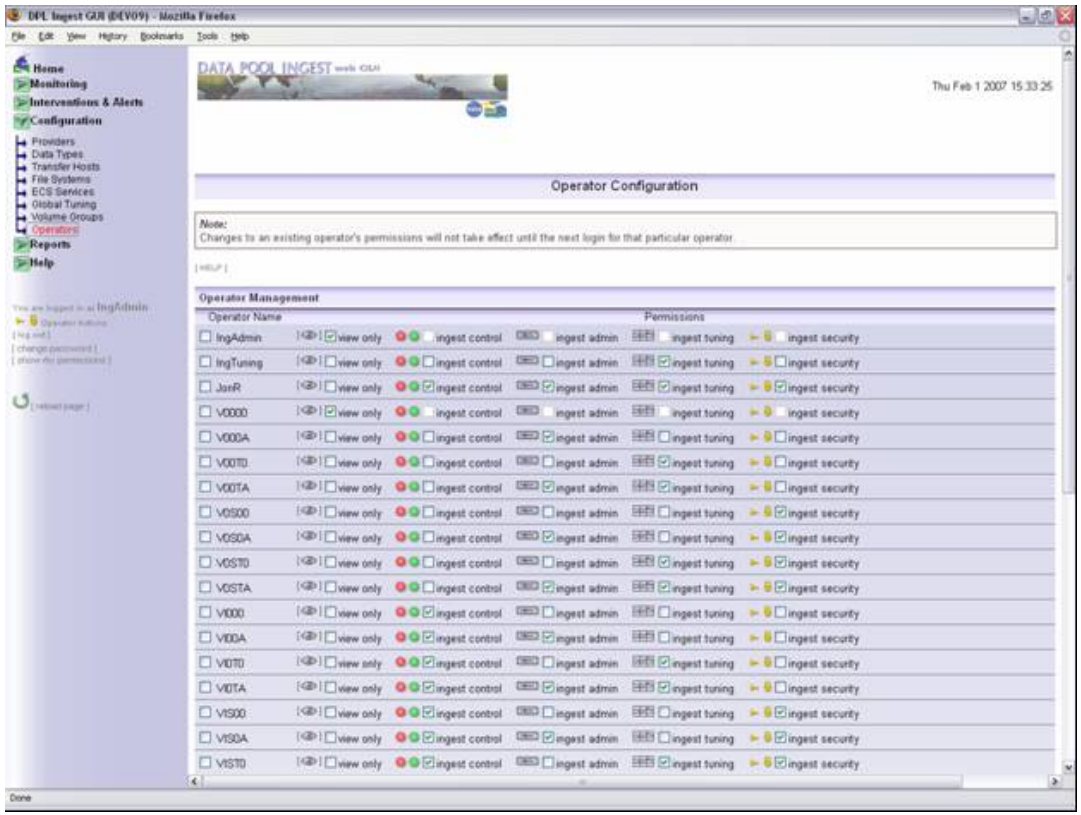


Modifying Configurations – Operator Access

- There are five different permission levels
  - An operator may be assigned multiple permissions other than view only
- The following list reviews the five permission levels for the Data Pool Ingest GUI
  - View Only – The operator cannot alter or modify anything on the GUI, nor can he/she take actions
    - All textboxes, checkboxes, drop-down lists, etc. are disabled
  - Ingest Control- The operator can manage Ingest requests and interventions
    - Can suspend or resume requests, place on hold and close interventions, fail or resume granules, etc
  - Ingest Admin - The operator can alter general configuration parameters such has SCP/FTP Host configuration, providers, data types
    - This level of operator cannot modify tuning parameters
  - Ingest Tuning - The operator can alter global and host-specific tuning configuration parameters
  - Security Admin - The operator can maintain security-related information like passwords and operators

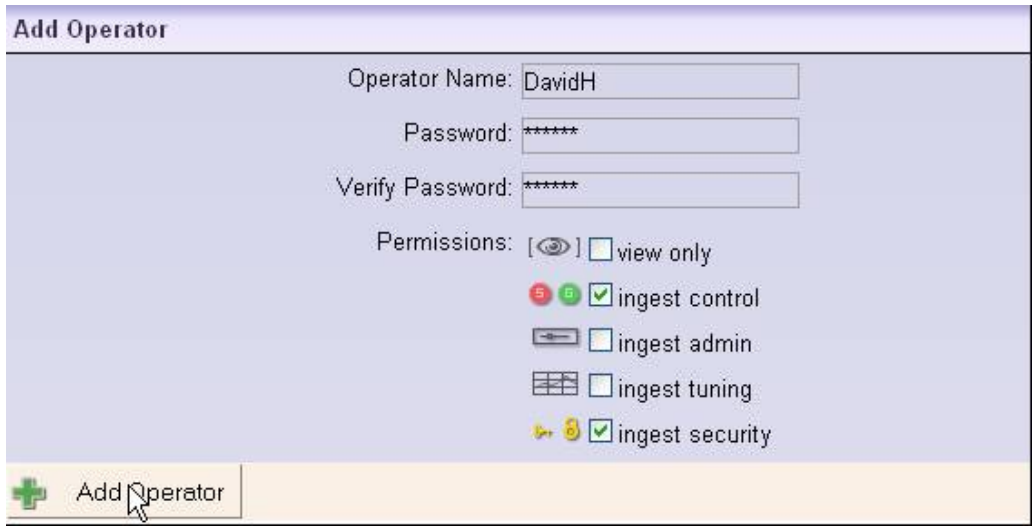
Modifying Configurations – Modify Operator Permission Settings

- **Procedure**
- **Reminder: Must have special Security Admin access to make changes**
  - **Select the Configuration link**
  - **Select the Operators link**
  - **Click the box next to the name of the operator requiring changes**
  - **Click on the box next to the desired permissions change**
  - **Click the Update Operators button**
  - **Select OK**



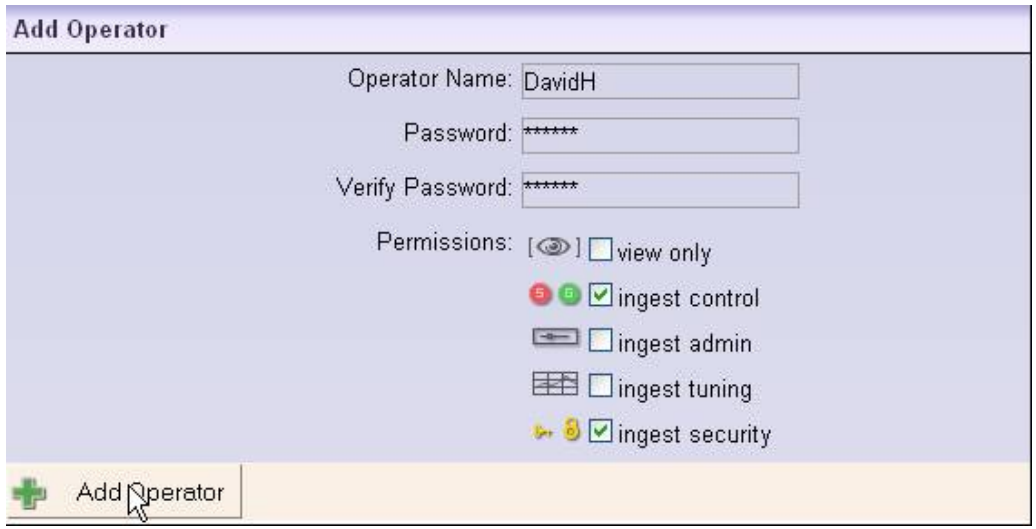
Modifying Configurations – Add Operator Permission Settings

- **Procedure**
- **Reminder: Must have special Security Admin access to make changes**
  - **Select the Configuration link**
  - **Select the Operators link**
  - **Scroll to the bottom of the Operator Configuration screen to the Add Operator section**



Modifying Configurations – Add Operator Permission Settings (Cont.)

- **Procedure (Cont.)**
  - **Enter the Operator Name**
  - **Enter the Password**
  - **Enter the Verify Password**
  - **Select the Permissions**
  - **Click the Add Operators button**
  - **Select OK**

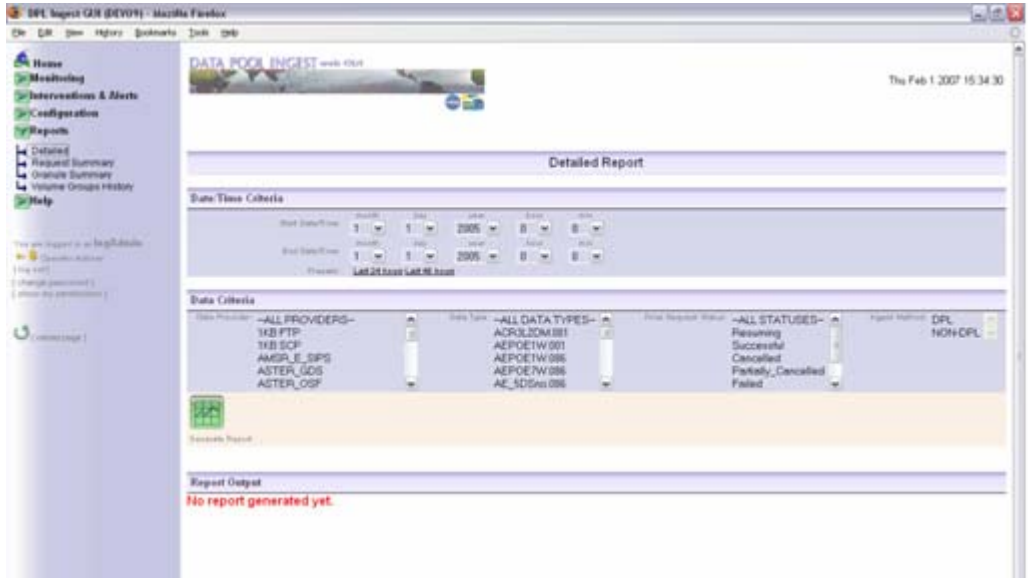


Reports

- **The reporting capability of the Ingest GUI offers the ability to view detailed reports on data providers, data types, request summary and granule summary reports**
- **The report pages display the information across data providers or data types**
- **Due to the large volume of data that may be in the database, reports can sometime take a while to process and be displayed**
- **Reports**
  - **Detailed**
  - **Request Summary**
  - **Granule Summary**
  - **Volume Group**

Generating Reports

- **Procedure**
  - **Select the Reports link**
  - **Select Detailed, Request Summary or Granule Summary link**
  - **Enter the Start Date/Time and End Date/Time**
  - **Select the Data Providers, Data Types, one or more Final Request Statuses, and the Ingest Method (ie, DPL or Non-DPL)**
  - **Select the Generate Report button**



Current Report Criteria:

Data Provider(s): [ALL]
Data Type(s): [ALL]
Final Request Status: [ALL]
Start Date/Time: 1/11/2006 15:18
End Date/Time: 31/10/2006 15:18

Report Output

Req.ID	Data Provider	Ingest Type	Ingest Method	Start Date/Time	End Date/Time	Tot.# grans.	# Succ. grans.	Vol (MB)	File Count	Time to xfer (mins)	Time to preproc (min)	Time to Archive (min)	Priority	Restart Flag
21807	S4P00	Polling_w/DR	DPL	2006-11-01 08:21:07	2006-11-01 08:21:19	1	1	6.311	2	0	8	0	VHIGH	
21808	S4P00	Polling_w/DR	DPL		2006-11-01 08:29:06	1		6.245	2	0	0	0	VHIGH	
21809	ASTER_OSF	Polling_w/DR	DPL	2006-11-01 10:03:09	2006-11-01 10:03:10	1		0.473	2	0	0	0	NORMAL	
21810	ASTER_OSF	Polling_w/DR	DPL	2006-11-01 10:03:09	2006-11-01 10:03:10	1		0.473	2	0	0	0	NORMAL	
21811	ASTER_OSF	Polling_w/DR	DPL	2006-11-01 10:03:09	2006-11-01 10:03:10	1		0.473	2	0	0	0	NORMAL	

Generating Reports (Cont.)

Request Summary Report Layout

Current Report Criteria:

Data Type(s): [ALL]

Final Request Status: [ALL]

Start Date/Time: 1/11/2006 15:21

End Date/Time:31/10/2006 15:21

Report Output

Data Provider	Ingest Type	Ttl. Reqs	Ttl. Errors	Gran Avg	Gran Max	File Avg	File Max	Size Avg (MB)	Size Max (MB)	Xfer time Avg (mins)	Xfer time Max (mins)	Preproc time Avg (mins)	Preproc time Max (mins)	Archive Time Avg (mins)	Archive Time Max (mins)
ASTER_OSF		12	0	1	1	2	2	0.473	0.473	10	126	3	14	0	1
CRIT_4150_2		10	0	1	1	2	2	0.473	0.473	0	1	1	2	0	0
MODAPS_TERRA_FPROC		1	0	1	1	2	2	0.473	0.473	0	0	2	2	0	0
S4P00		57	0	1	1	2	3	16.157	71.236	0	2	2	8	0	1

Granule Summary Report Layout

Current Report Criteria

Data Provider(s): [ALL]

Data Type(s): [ALL]

Final Request Status: [ALL]

Start Date/Time: 1/11/2006 15:21

End Date/Time: 30/10/2006 15:21

Report Output

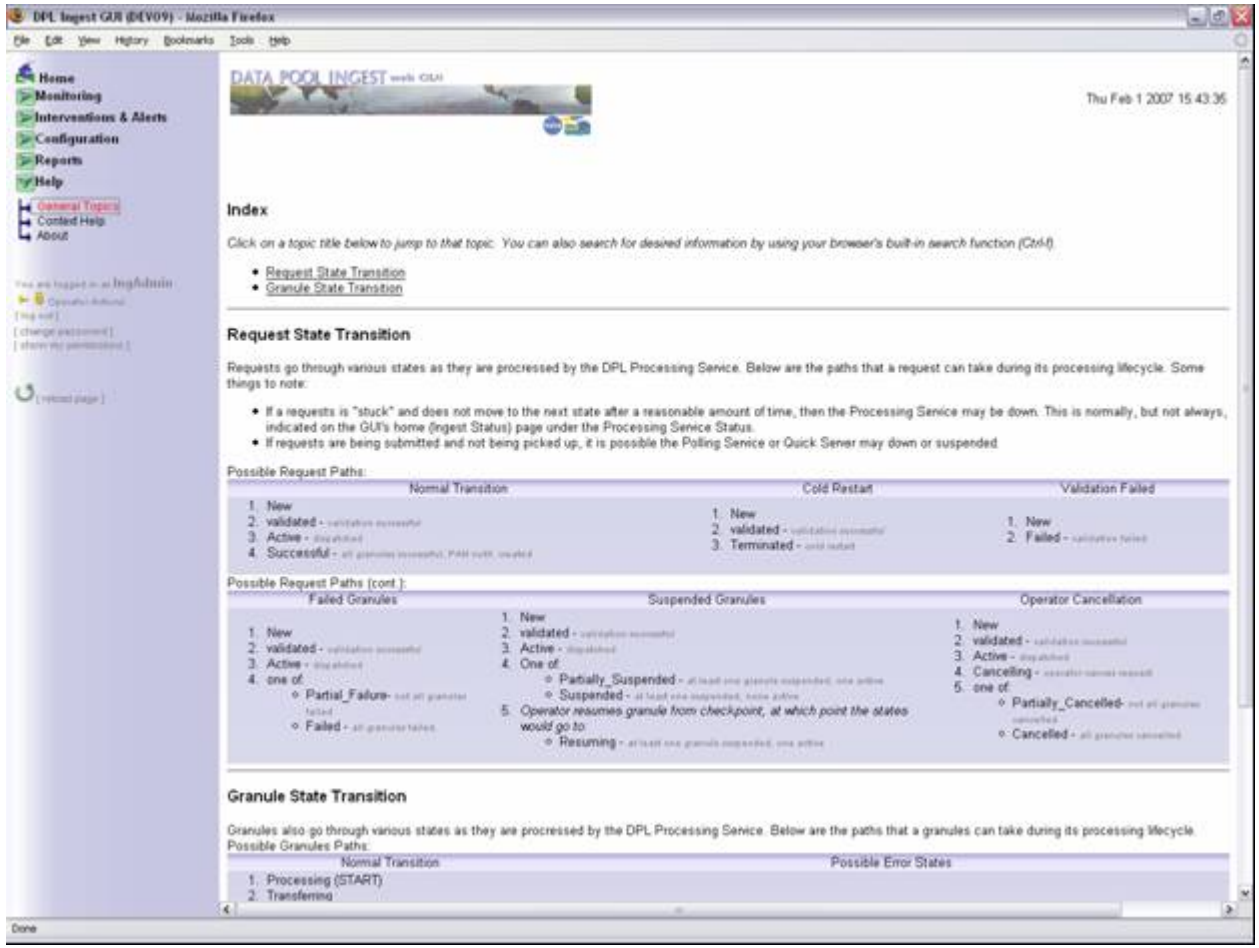
Data Provider	Ingest Type	Data Type	Ttl. Grans	Ttl. Errors	File Avg	File Max	Size Avg (MB)	Size Max (MB)	Xfer time Avg (mins)	Xfer time Max (mins)	Preproc time Avg (mins)	Preproc time Max (mins)	Archive Time Avg (mins)	Archive Time Max (mins)
ALL_ESDTS		AEPOE1W	2	0	2	2	0.048	0.048	0	1	19	27	1	3
ALL_ESDTS		AEPOE7W	2	0	2	2	0.100	0.100	0	1	11	15	1	1
ALL_ESDTS		AE_5DSno	2	0	2	2	0.100	0.100	1	2	18	21	0	0
ALL_ESDTS		AE_DyOcn	4	0	2	2	0.100	0.100	1	3	16	28	0	1
ALL_ESDTS		AE_DySno	4	0	2	2	0.100	0.100	0	1	18	29	1	4
ALL_ESDTS		AE_L2A	29	0	2	2	0.103	0.103	2	5	16	30	1	4
ALL_ESDTS		AE_Land3	4	0	2	2	0.100	0.100	2	3	11	17	0	3
ALL_ESDTS		AE_MoOcn	3	0	2	2	0.100	0.100	2	3	12	24	0	0

Help

- **The Help section, contains information the operator can have readily available while operating the Data Pool Ingest GUI**
- **Three links**
  - **General Topics**
  - **Context Help**
  - **About**

Help – General Topics

- **Procedure**
  - **Select the Help link**
  - **Select the General Topics link**
  - **Click on Request State Transition link**



Data Pool Management

- **Features of the Data Pool Maintenance GUI**
  - **Most Archive or support personnel tasks for monitoring and maintaining the Data Pool require the use of the Data Pool Maintenance (DPM) GUI**
  - **The DPM GUI permits an Ingest operator to perform tasks in the following general areas:**
    - **Managing Data Pool Collection Groups**
    - **Managing Data Pool Collections within Collection Groups**

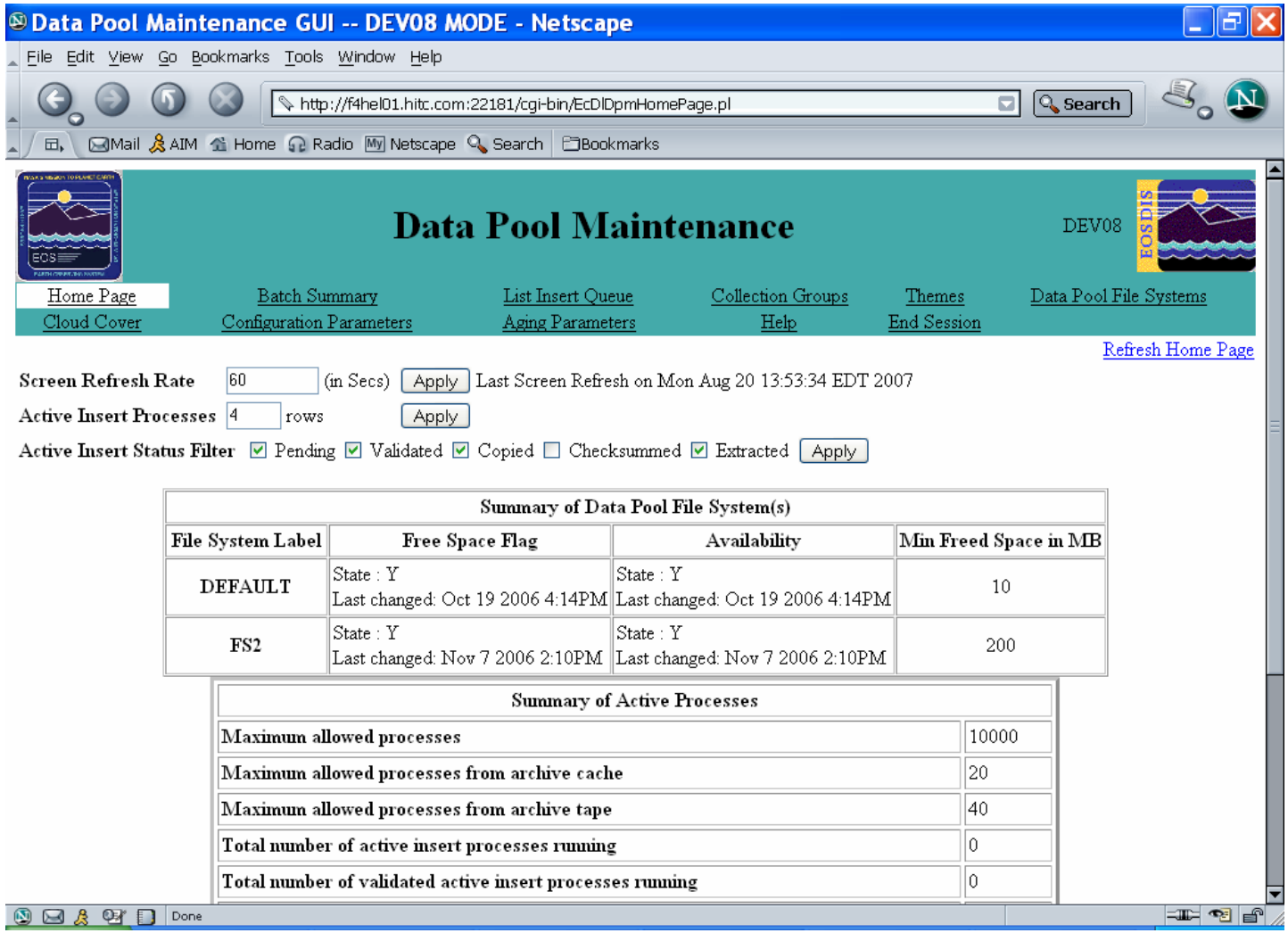
Data Pool Management (Cont.)

- **Features of the Data Pool Maintenance GUI (Cont.)**
  - **New operator GUI security standards require the following two levels of permissions for the DPM GUI:**
    - **Full Capability**
    - **Limited Capability**
  - **Full-capability operators have the ability to configure parameters and perform all other actions that can be accomplished with the DPM GUI**
  - **Limited-capability operators are able to view a lot of information**
    - **However, on the limited-capability GUI some buttons and links have been disabled so it is not possible to perform certain actions or access certain pages**

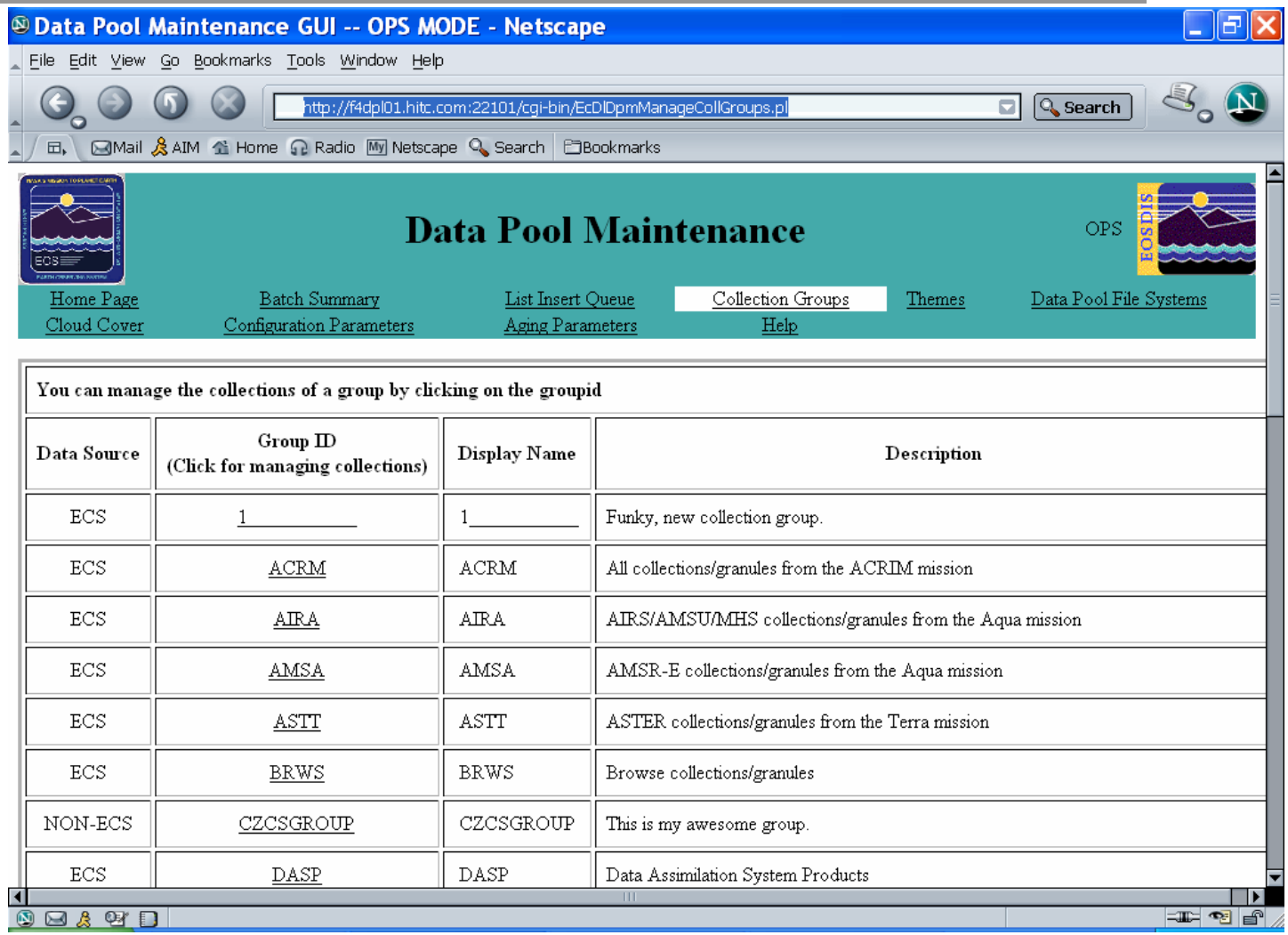
Data Pool Management (Cont.)

- **Features of the Data Pool Maintenance GUI (Cont.)**
  - **This lesson provides instruction in the full-capability version of the DPM GUI**
    - **However, the functions that are available to limited-capability operators as well as the functions that are not available to limited-capability operators are identified**

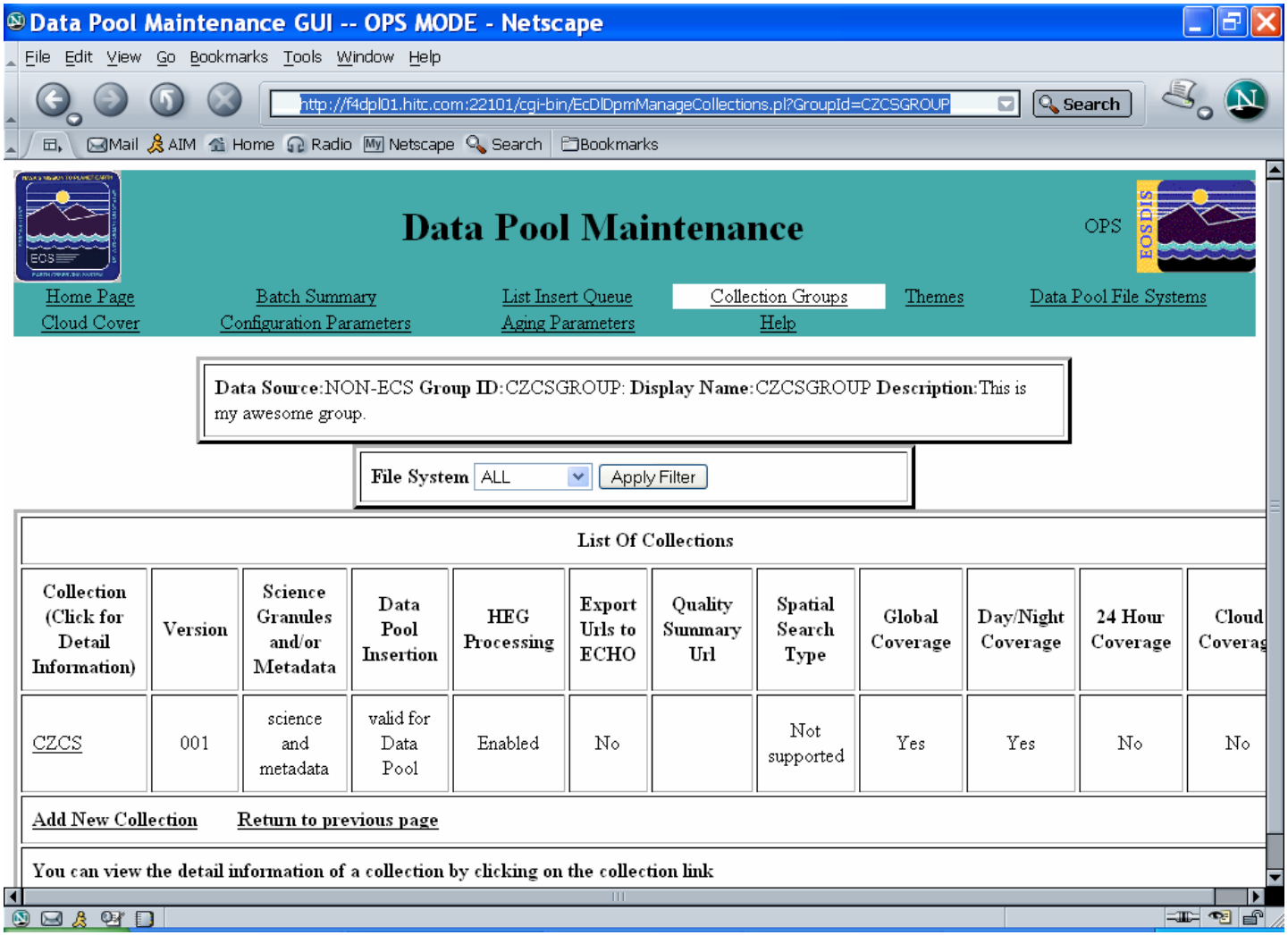
DPM GUI: Home Page



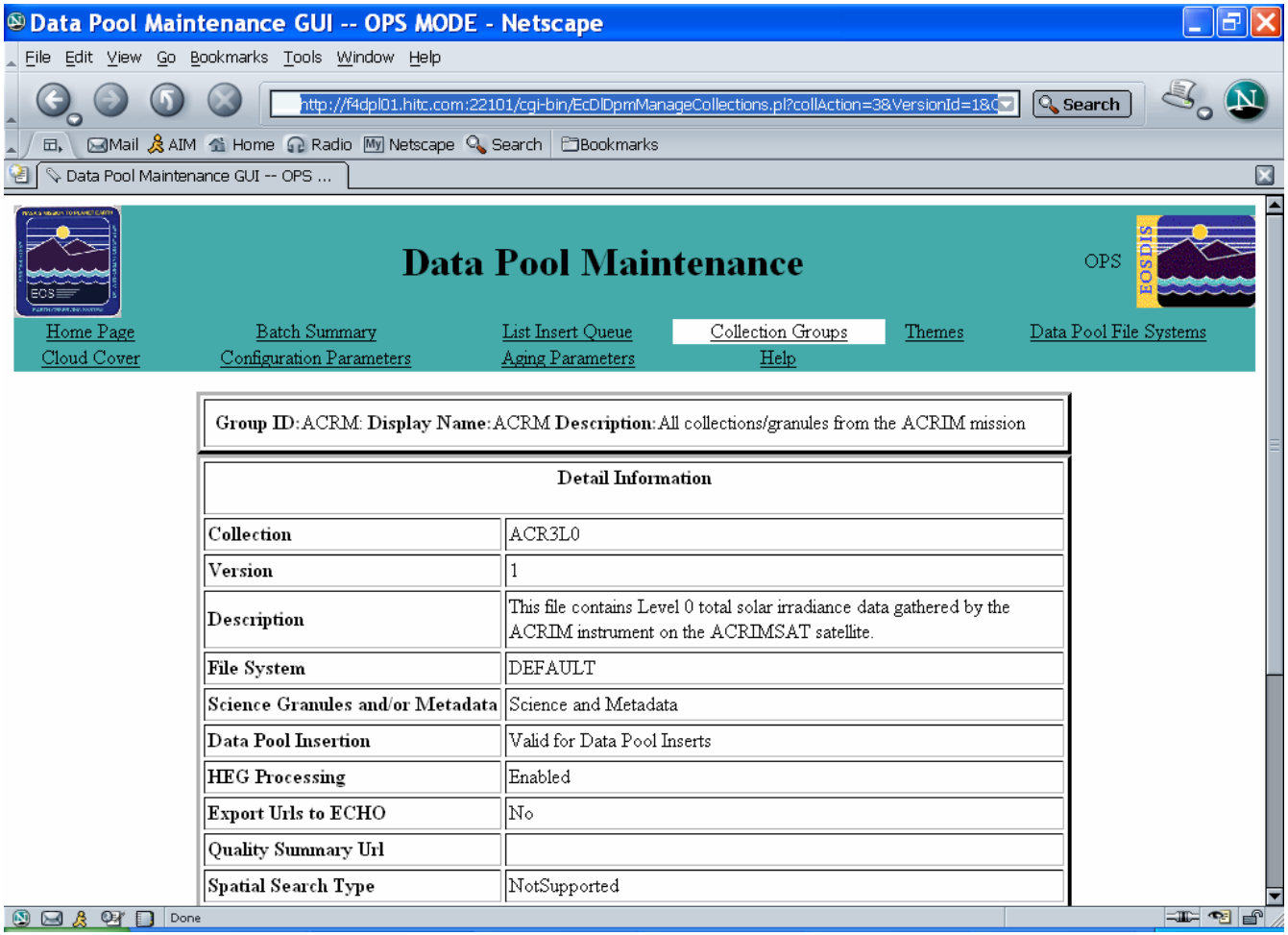
DPM GUI: Collection Group Page



DPM GUI: List of Collections Page

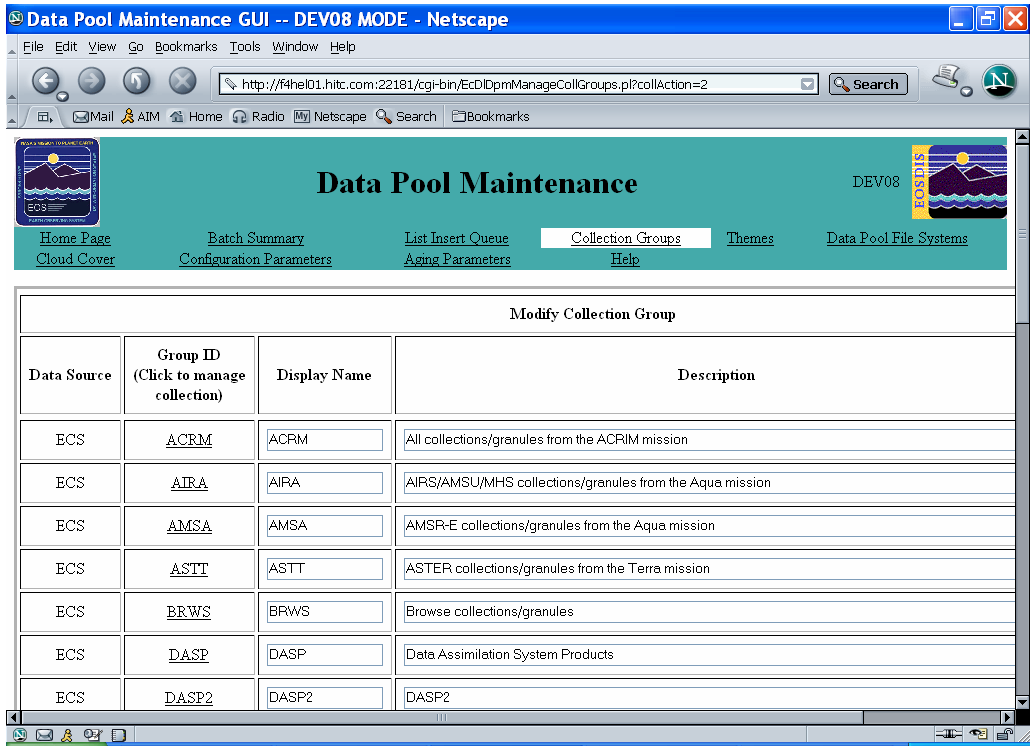


DPM GUI: ECS Collection Detail Information Page



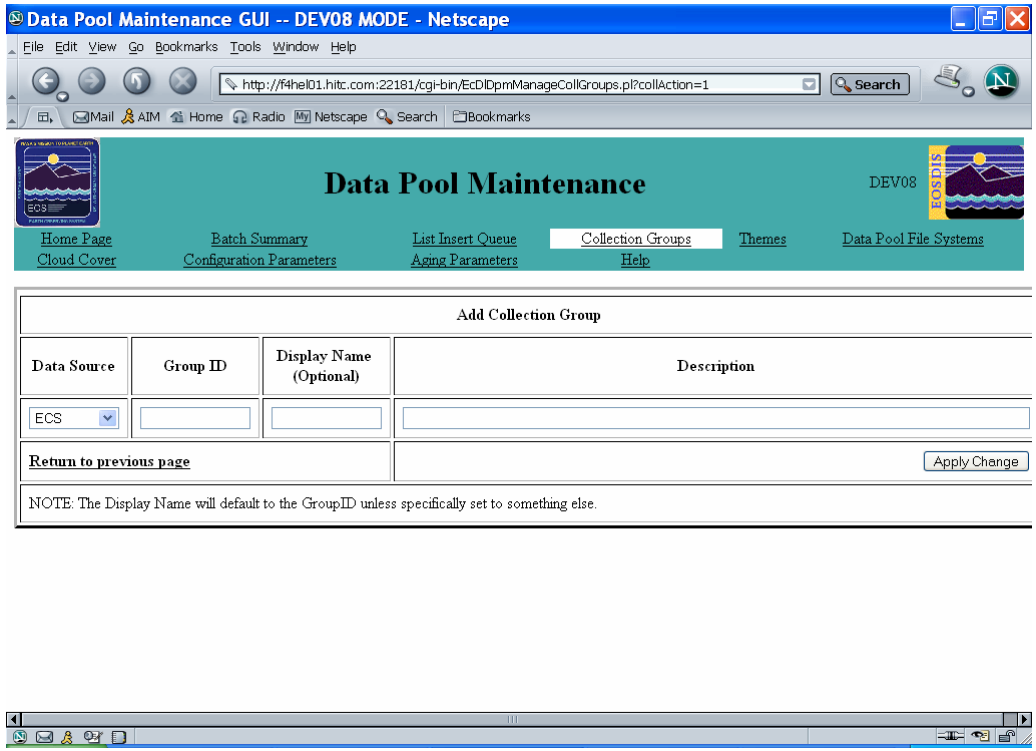
DPM GUI: Modify Collection Group

- **Procedure**
  - **Select the DPM GUI Collection Groups link**
  - **Select the Modify Collection Group link**
  - **Make desired changes to the Display Name and Description**
  - **Select check box at the end of the row.**
  - **Click on the Apply Changes button.**



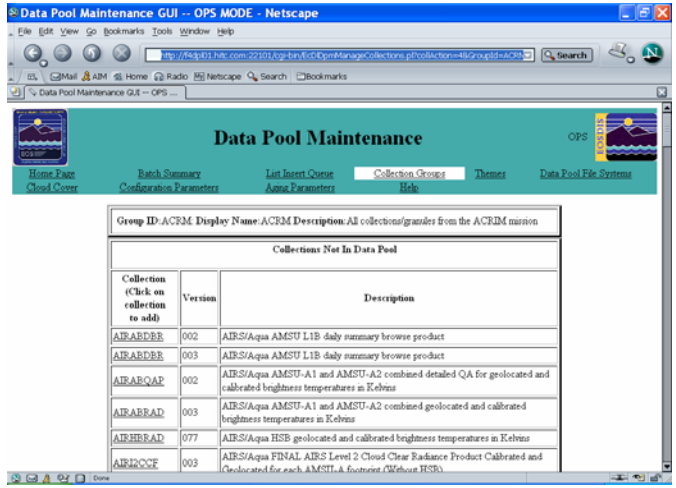
DPM GUI: Add A Collection Group

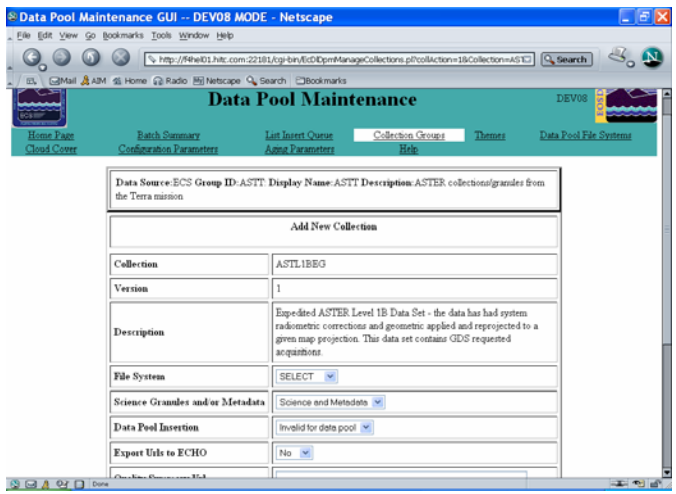
- **Procedure**
  - **Select the DPM GUI Collection Groups link**
  - **Select the Add Collection Group link**
  - **Enter Display Source, Group ID, Display Name and Description**
  - **Click on the Apply Change button**
- **Note: Once entered, the Collection Group cannot be deleted**



DPM GUI: Add ECS Collections to a Collection Group

- **Procedure**
  - **Select the DPM GUI Collection Groups link**
  - **Select the Group ID link**
  - **Select the Add New Collection link**
  - **From the Collections Not in Data Pool page select the collection to add**
  - **Complete all appropriate fields**
  - **Click on the Apply Change button**





DPM GUI: Modify an ECS Collection

- **Procedure**
  - **Select the DPM GUI Collection Groups link**
  - **Select the Group ID link**
  - **From the List of Collections page, select the collection to be modified**
  - **From the Detailed Information page, select the Modify Collection link**
  - **From the Modify Collection page, complete desired fields**
  - **Click on the Apply Change button**